

SEARCH REQUEST FORM

Requestor's Name: _____ Serial Number: _____
Date: _____ Phone: _____ Art Unit: _____

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

STAFF USE ONLY

Date completed: 03-17-03

Searcher: Beverly C 4999

Terminal time: 22

Elapsed time: _____

CPU time: _____

Total time: 23

Number of Searches: _____

Number of Databases: 1

Search Site

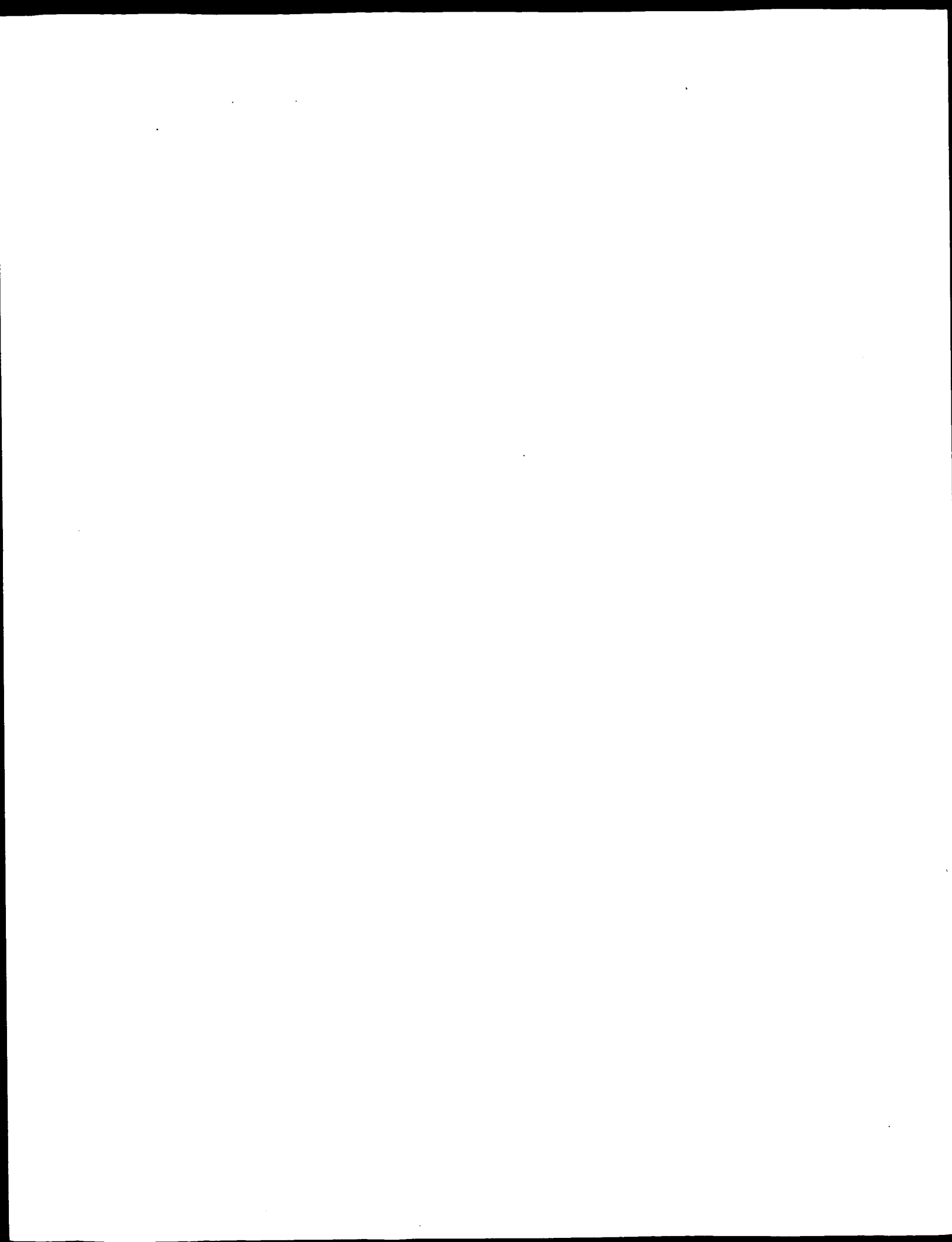
_____ STIC
_____ CM-1
_____ Pre-S

Type of Search

_____ N.A. Sequence
_____ A.A. Sequence
_____ Structure
_____ Bibliographic

Vendors

_____ IG Suite
_____ STN
_____ Dialog
_____ APS
_____ Geninfo
_____ SDC
_____ DARC/Questel
_____ Other CGN



OM nucleic - nucleic search, using sw model

(without alignments)

perfect score
sequence:

Scoring table

Work in progress

Total number of hits satisfying chosen parameters:

Minimum	DB	seq	length:	0
Maximum	DB	seq	length:	3

Post-processing: Listing first 1000 summaries

Database : Pending Patents NA Main.**

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Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

SUMMARIES

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3	4145	100.0	4145	1	US-08-630-798-1	Sequence 1, Appli	
4	4145	100.0	4145	14	US-09-053-375B-110	Sequence 110, Appli	
5	4145	100.0	4145	15	US-09-176-496-1	Sequence 1, Appli	
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7	4145	100.0	4145	18	US-09-440-302B-724	Sequence 724, Appli	
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16	4145	100.0	33459	21	US-09-543-679A-3003	Sequence 3003, Appli	
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18	3458	83.4	4070	1	PCT-US97-07443-1	Sequence 1, Appli	
19	3381	81.6	4062	14	US-09-016-634-1478	Sequence 1478, Appli	
20	3357	81.0	4150	18	US-09-469-519-37	Sequence 37, Appli	
21	3357	81.0	4150	22	US-09-557-984-3	Sequence 3, Appli	

22	3327	80.3	3946	22	US-09-597-984-2	Sequence 2, Appl1	95	165	4.0	250	42	US-10-203-136-19076	Sequence 19076, A
23	3315	80.0	4132	23	US-09-770-171-1280	Sequence 1280, Ap	96	165	4.0	250	42	US-10-203-137-19110	Sequence 19110, A
24	3309	79.8	4210	24	US-60-217-674-11	Sequence 11, Appl	97	165	4.0	250	42	US-10-203-138-18591	Sequence 18591, A
25	3207	77.4	4201	25	US-60-172-373-1019	Sequence 1019, Ap	98	165	4.0	483	1	PCT-US01-00663-5923	Sequence 5923, Ap
26	3039	73.3	3855	26	US-60-353-790-3761	Sequence 3761, Ap	99	165	4.0	483	31	US-09-864-761-5546	Sequence 5546, Ap
27	2652	64.0	3460	27	US-60-213-248-45	Sequence 45, Appl	100	165	4.0	483	41	US-10-182-993-5713	Sequence 5713, Ap
28	2412	58.2	3454	28	US-60-324-830-13	Sequence 13, Appl	101	165	4.0	483	41	US-10-182-997-5546	Sequence 5546, Ap
29	2156	52.0	4223	29	US-60-324-185-13872	Sequence 13872, A	102	165	4.0	483	41	US-10-182-997-5573	Sequence 5573, Ap
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31	585	14.1	604	31	US-09-272-706-2	Sequence 2, Appl1	104	165	4.0	483	42	US-10-203-135-6086	Sequence 6086, Ap
32	585	14.1	604	32	US-09-503-536-1	Sequence 1, Appl1	105	165	4.0	483	42	US-10-203-137-5923	Sequence 5923, Ap
33	504	12.2	32340	33	US-60-248-830-3	Sequence 3, Appl1	106	165	4.0	483	42	US-10-203-137-5923	Sequence 5970, Ap
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35	480	11.6	1026	35	US-09-272-706-13	Sequence 13, Appl	108	154	3.7	3685	66	US-60-229-514-127	Sequence 989, Ap
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38	422	10.2	623	38	US-60-213-536-7	Sequence 7, Appl1	111	139	3.4	667	63	US-60-196-174-292	Sequence 292, Ap
39	358	8.6	1639	39	US-60-248-830-14	Sequence 14, Appl	112	137	3.3	1291	1	PCT-US02-25766-124	Sequence 124, Ap
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51	310	7.3	540	51	US-09-699-997-1473	Sequence 1473, Ap	124	119	2.9	342	61	US-60-171-441-114	Sequence 183, Ap
52	301	7.3	393	52	PCT-US01-08631-3457	Sequence 3457, Ap	125	108	2.6	256	68	US-60-248-830-15	Sequence 15, Appl
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56	254	6.1	256	56	US-09-770-171-166	Sequence 166, Ap	129	104	2.5	587	60	US-60-166-248-830-15	Sequence 2272, Ap
57	248	6.0	256	57	PCT-US01-43704-1831	Sequence 1831, Ap	130	97	2.3	1554	65	US-60-213-350-57	Sequence 57, Appl
58	248	6.0	256	58	US-09-998-598-1831	Sequence 1831, Ap	131	97	2.3	1720	65	US-60-213-350-57	Sequence 28, Appl
59	206	5.0	608	59	US-60-177-646-1423	Sequence 1423, Ap	132	93	2.2	1114	40	US-09-603-137-28	Sequence 28, Appl
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65	194	4.7	466	65	US-09-577-410-203	Sequence 436, App	138	92	2.2	92	42	US-10-203-135-18929	Sequence 13351, A
66	186	4.5	855	66	US-09-419-553-436	Sequence 436, App	139	92	2.2	92	42	US-10-203-137-19361	Sequence 13361, A
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68	186	4.5	855	68	US-10-216-086-436	Sequence 436, App	141	90	2.2	92	42	US-10-203-139-18825	Sequence 386, App
69	185	4.5	109471	69	US-60-248-830-1	Sequence 1, Appl1	142	90	2.2	276	5	US-08-103-743B-386	Sequence 386, App
70	184	4.4	479	70	PCT-US01-00663-6190	Sequence 6190, Ap	143	90	2.2	276	5	US-08-103-743B-386	Sequence 386, App
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73	184	4.4	479	73	US-10-203-134-6183	Sequence 6183, Ap	146	86	2.1	686	64	US-60-200-109-580	Sequence 2185, Ap
74	184	4.4	479	74	US-10-203-135-6371	Sequence 6371, Ap	147	84	2.0	284	14	US-09-092-504-2185	Sequence 6002, Ap
75	184	4.4	479	75	US-10-203-136-6300	Sequence 6300, Ap	148	84	2.0	284	20	US-09-534-845-6002	Sequence 6002, Ap
76	184	4.4	479	76	US-10-203-137-6190	Sequence 6190, Ap	149	84	2.0	284	20	US-09-534-846-6002	Sequence 1236, Ap
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83	171	4.1	385	83	US-60-194-243-1220	Sequence 1220, Ap	156	84	2.0	32169	64	US-60-206-043-1	Sequence 2, Appl1
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85	171	4.1	559	85	US-60-170-373-42	Sequence 42, Appl1	158	84	2.0	32169	64	US-60-206-043-3	Sequence 2156, Ap
86	171	4.1	3068	86	US-60-207-189-3	Sequence 3, Appl1	159	83	2.0	713	60	US-60-163-233-2156	Sequence 2374, Ap
87	167	4.0	560	87	US-09-577-410-7472	Sequence 7472, Ap	160	81	2.0	518	60	US-60-160-203-1895	Sequence 1895, Ap
88	165	4.0	250	88	PCT-US01-00663-19110	Sequence 19110, A	161	81	2.0	518	60	US-60-160-203-1895	Sequence 1895, Ap
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94	165	4.0	250	94	US-10-203-135-18656	Sequence 18656, A	167	71	1.7	512	63	US-60-198-833-4	Sequence 4, Appl1

C 168	69	1.7	301	61	US-60-170-373-498	Sequence 498, App
C 169	69	1.7	301	62	US-60-181-428-71	Sequence 71, Appl
C 170	69	1.7	301	62	US-60-181-428-71	Sequence 72, Appl
C 171	66	1.6	661	61	US-60-177-571-1027	Sequence 1027, Ap
C 172	66	1.6	663	64	US-60-205-203-2	Sequence 2, Appl
C 173	64	1.5	379	60	US-60-163-233-757	Sequence 757, Ap
C 174	64	1.5	379	63	US-60-198-833-9	Sequence 9, Appl
C 175	64	1.5	563	61	US-60-173-469-365	Sequence 365, App
C 176	64	1.5	634	63	US-60-196-190-315	Sequence 315, App
C 177	64	1.5	1519	66	US-60-229-514-107	Sequence 107, App
C 178	63	1.5	451	60	US-60-162-247-1700	Sequence 1700, App
C 179	63	1.5	451	60	US-60-168-840-3060	Sequence 3060, App
C 180	62	1.5	215	30	US-09-760-475-1616	Sequence 1616, Ap
C 181	62	1.5	618	60	US-60-162-247-2440	Sequence 2440, Ap
C 182	62	1.5	619	60	US-60-163-233-565	Sequence 565, App
C 183	62	1.5	641	60	US-60-162-247-2096	Sequence 2096, Ap
C 184	62	1.5	642	60	US-60-163-233-1152	Sequence 1152, Ap
C 185	62	1.5	699	61	US-60-177-571-1897	Sequence 1897, Ap
C 186	62	1.5	699	61	US-60-177-571-1897	Sequence 1897, Ap
C 187	62	1.5	704	62	US-60-188-162-123	Sequence 123, App
C 188	62	1.5	704	62	US-60-188-162-123	Sequence 981, App
C 189	62	1.5	704	64	US-60-205-224-2	Sequence 2, Appl
C 190	62	1.5	784	24	US-09-634-306B-112871	Sequence 112871, Sequence 112871,
C 191	62	1.5	784	38	US-10-021-632-112871	Sequence 112871,
C 192	62	1.5	2191	62	US-60-185-361-212	Sequence 212, App
C 193	62	1.5	2191	62	US-60-185-361-213	Sequence 213, App
C 194	62	1.4	60	34	US-09-908-975-32057	Sequence 32057, A
C 195	60	1.4	60	34	US-09-908-975-32228	Sequence 32228, A
C 196	60	1.4	60	34	US-09-908-975-32228	Sequence 32057, A
C 197	60	1.4	60	34	US-09-908-975-32057	Sequence 32228, A
C 198	60	1.4	60	72	US-60-287-724-32228	Sequence 32228, A
C 199	60	1.4	60	72	US-60-287-724-32228	Sequence 32057, A
C 200	60	1.4	254	6	US-08-293-347-1820	Sequence 1820, A
C 201	60	1.4	254	6	US-08-534-845-6000	Sequence 6000, Ap
C 202	60	1.4	254	20	US-09-534-846-6000	Sequence 6000, Ap
C 203	58	1.4	401	60	US-60-162-247-2701	Sequence 2701, App
C 204	58	1.4	402	60	US-60-162-247-698	Sequence 698, App
C 205	58	1.4	402	60	US-60-163-233-950	Sequence 950, App
C 206	58	1.4	402	60	US-60-169-840-2514	Sequence 2514, App
C 207	58	1.4	402	60	US-60-169-867-2303	Sequence 2303, Ap
C 208	56	1.4	1284	62	US-60-185-361-433	Sequence 433, App
C 209	56	1.4	1727	62	US-60-185-361-101	Sequence 101, App
C 210	54	1.3	684	64	US-60-207-189-4	Sequence 4, Appl
C 211	53	1.3	515	61	US-60-171-481-5	Sequence 5, Appl
C 212	53	1.3	515	61	US-60-171-481-658	Sequence 658, App
C 213	52	1.3	60	34	US-09-908-975-8469	Sequence 8469, App
C 214	52	1.3	60	34	US-09-908-975A-8469	Sequence 8469, Ap
C 215	52	1.3	60	34	US-60-287-724-8469	Sequence 1020, Ap
C 216	51	1.2	51	61	US-60-172-373-1020	Sequence 1020, Ap
C 217	51	1.2	51	76	US-60-324-185-13873	Sequence 13873, A
C 218	51	1.2	549	63	US-60-196-190-284	Sequence 284, App
C 219	50	1.2	304	63	US-60-171-481-28	Sequence 1, Appl
C 220	50	1.2	552	61	US-60-198-833-1	Sequence 28, Appl
C 221	50	1.2	841	26	US-09-667-117-117	Sequence 117, App
C 222	50	1.2	841	26	US-09-667-117A-117	Sequence 117, App
C 223	50	1.2	841	26	US-60-167-542-208	Sequence 208, App
C 224	50	1.2	855	61	US-60-172-373-14898	Sequence 14898, A

ALIGNMENTS

RESULT 1
PCT-US01-01381A-3
; Sequence 3, Application PC/TUS0101381A
; GENERAL INFORMATION:
; APPLICANT: Isis Pharmaceuticals, Inc.
; APPLICANT: C. Frank Bennett
; APPLICANT: Nicholas M. Dean
; APPLICANT: Lex M. Cowsett
; TITLE OF INVENTION: ANTISENSE MODULATION OF INDUCIBLE NITRIC OXIDE SYNTHASE
; TITLE OF INVENTION: EXPRESSION
; FILE REFERENCE: RISP-0098

;	CURRENT APPLICATION NUMBER: PCT/US01/01381A				
;	CURRENT FILING DATE: 2001-01-16				
;	PRIOR APPLICATION NUMBER: 09/490,208				
;	PRIOR FILING DATE: 2000-01-24				
;	NUMBER OF SEQ ID NOS: 182				
;	SEQ ID NO 3				
;	LENGTH: 4145				
;	TYPE: DNA				
;	ORGANISM: Homo sapiens				
;	FEATURE:				
;	NAME/KEY: CDS				
;	LOCATION: (207)...(3668)				
;	PCT-US01-01381A-3				
;	Query Match	100.0%;	Score 4145;	DB 1;	Length 4145;
;	Best Local Similarity	100.0%;	Pred. No. 0;		
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Db	1	CTGCTTTAAATCTGCGCCACCTTTGATGAGGGGAGTGGGAGTCTTACACAGTCCG	60		
Qy	61	AAGTTCTCAAGCAGGCTCTCTCTGTTGACTCTTACCCGGGAGGAGTGC	120		
Db	61	AAGTTCTCAAGCAGGCTCTCTCTGTTGACTCTTACCCGGGAGGAGTGC	120		
Qy	121	AGCCGCTGCAAGCCCGCAGTGAAGAACATCTGAGCTCAATCCAGATAAGTACATTA	180		
Db	121	AGCCGCTGCAAGCCCGCAGTGAAGAACATCTGAGCTCAATCCAGATAAGTACATTA	180		
Qy	181	GTGACCTCTTGTAAACCCATAGAGATGGCTGCTTGAATTTCTGTTCAAGACA	240		
Db	181	GTGACCTCTTGTAAACCCATAGAGATGGCTGCTTGAATTTCTGTTCAAGACA	240		
Qy	241	AATTCACCAATGATGCAATGATGAGGGAAGAAACATCAACACATGTGGAGAAAGCC	300		
Db	241	AATTCACCAATGATGCAATGATGAGGGAAGAAACATCAACACATGTGGAGAAAGCC	300		
Qy	301	CGTGGCCAGCCAGTCCAGTCAAGAGTGAACGATGACCTTCAATACACACTGACAGC	360		
Db	301	CGTGGCCAGCCAGTCCAGTCAAGAGTGAACGATGACCTTCAATACACACTGACAGC	360		
Qy	361	AGCAGATGAGTCCCGGAGCCCTCGTGAAGAGGGAAGAAAGTCTCCAGATCTGG	420		
Db	361	AGCAGATGAGTCCCGGAGCCCTCGTGAAGAGGGAAGAAAGTCTCCAGATCTGG	420		
Qy	421	TCAAGCTGATGCAACCCCATTTGCTCCCGACGCGATGTGAGATCAAAAACCTGGGCA	480		
Db	421	TCAAGCTGATGCAACCCCATTTGCTCCCGACGCGATGTGAGATCAAAAACCTGGGCA	480		
Qy	481	GGGGGATGACTTCCAGACACACTTCAATAGAGGCAAGGATTTAACTTGACAGT	540		
Db	481	GGGGGATGACTTCCAGACACACTTCAATAGAGGCAAGGATTTAACTTGACAGT	540		
Qy	541	CCAATCTTGGCTGGGCTCATTTAGCTCCCAAAATTGACCAAGAGGAGCCAGGACA	600		
Db	541	CCAATCTTGGCTGGGCTCATTTAGCTCCCAAAATTGACCAAGAGGAGCCAGGACA	600		
Qy	601	AGCTACCCCTCCAGATGAGTCTTACCTAAGCTATGCAATTTGCAACCAATATTAG	660		
Db	601	AGCTACCCCTCCAGATGAGTCTTACCTAAGCTATGCAATTTGCAACCAATATTAG	660		
Qy	661	GCTCTTCAAGAGGAGCAAAATAGAGACATCTGGGAGGAGGAGGAGGAGGAGGAGG	720		
Db	661	GCTCTTCAAGAGGAGCAAAATAGAGACATCTGGGAGGAGGAGGAGGAGGAGGAGG	720		
Qy	721	AGATGAAGACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	780		
Db	721	AGATGAAGACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	780		
Qy	781	AGGCTGGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	840		
Db	781	AGGCTGGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	840		

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Db 841 TCGATGCCCGAGCTGTTCACCTGCCGGGAATGTTGAACACATCTGACAGACAGTGC 900
QY 901 GTTACTCCACCAACAAATGGCAATCAGATGCGGCATCACCCTGTTCCCGCAGCGAGTG 960
Db 901 GTTACTCCACCAACAAATGGCAATCAGATGCGGCATCACCCTGTTCCCGCAGCGAGTG 960
QY 961 ATGCGACACAGCATTCGCGGTGTGGAATGCTCAGCTCATCCGCTATGCTGGCTACACGA 1020
Db 961 ATGCGACACAGCATTCGCGGTGTGGAATGCTCAGCTCATCCGCTATGCTGGCTACACGA 1020
QY 1021 TGGCAGATGAGCATCAGAGGGAGCCCTGCAACGTGGAATTAATCACTACCTGTGATCG 1080
Db 1021 TGGCAGATGAGCATCAGAGGGAGCCCTGCAACGTGGAATTAATCACTACCTGTGATCG 1080
QY 1081 ACCTGGGCTGGAAGCCCAAGTAGAGCGGCTTCGATGTGTCGCCCTGCTCCGACGCA 1140
Db 1081 ACCTGGGCTGGAAGCCCAAGTAGAGCGGCTTCGATGTGTCGCCCTGCTCCGACGCA 1140
QY 1141 ATGGCCGTGACCTGAGCTCTTCGAATCCACCTGACCTTGCTGAGTGGCCATGG 1200
Db 1141 ATGGCCGTGACCTGAGCTCTTCGAATCCACCTGACCTTGCTGAGTGGCCATGG 1200
QY 1201 AACATCCCAATACGAGTGTGTTGGGAACTGAGACTAAAGTGTGACGCCCTGCTCAG 1260
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QY 1261 TGGCCACATGCTGCTGAGTGTGGGCGGCTGGAAGTCCAGGGTCCCTTCATGGCT 1320
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QY 1741 AGATTTCATTGAAGCTTTGCTCAAGCTGTGCTCTTCTGCTGTATGCTGATGCGCAAGA 1800
Db 1741 AGATTTCATTGAAGCTTTGCTCAAGCTGTGCTCTTCTGCTGTATGCTGATGCGCAAGA 1800
QY 1801 CAATGGCGTCCGAGTACAGATCAACATCTTTGGACAGAGAGAGAGAAATCAAGAG 1860
Db 1801 CAATGGCGTCCGAGTACAGATCAACATCTTTGGACAGAGAGAGAGAAATCAAGAG 1860
QY 1861 CGCTGGCTGGAGACCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGGTTGTCTGCA 1920
Db 1861 CGCTGGCTGGAGACCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGGTTGTCTGCA 1920

QY 1921 TGGATAGTACAGGCTGAGCTGCTGAGAGAGAACGGCTGCTGTTGGTGTGACAGTA 1980
Db 1921 TGGATAGTACAGGCTGAGCTGCTGAGAGAGAACGGCTGCTGTTGGTGTGACAGTA 1980
QY 1981 CGTTTGGCAATGAGAGCTGCTGCTGCAATGAGAGAGAACTGAGAAATGCTCTTCATGC 2040
Db 1981 CGTTTGGCAATGAGAGCTGCTGCTGCAATGAGAGAGAACTGAGAAATGCTCTTCATGC 2040
QY 2041 TGAAGAGCTCAACAAATTCAGGTACGCTGTGTTGGCCCTGGCTCCAGCATGTACC 2100
Db 2041 TGAAGAGCTCAACAAATTCAGGTACGCTGTGTTGGCCCTGGCTCCAGCATGTACC 2100
QY 2101 CTGCGTTTCGCGCTTGTGCTCATGATGATCAGAACTGTCCACCTGCGGAGCTCTC 2160
Db 2101 CTGCGTTTCGCGCTTGTGCTCATGATGATCAGAACTGTCCACCTGCGGAGCTCTC 2160
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QY 2221 GGGCGGTGCAACCTTCAGAGGAGCCTGAGAGCTTTGATGTCCGAGGCAAAACAGACA 2280
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Db	3061	ACCCCCAAGACCAGTGGCTCTGCTTTGTGGGAATGCGACGGCTTTCACCTCCCGAGG	3120
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RESULT 2
PCT-US01-01381A-10
; Sequence 10, Application PC/TUS0101381A
; GENERAL INFORMATION:
; APPLICANT: Isis Pharmaceuticals, Inc.
; APPLICANT: C. Frank Bennett
; APPLICANT: Nicholas M. Dean
; APPLICANT: Iey M. Cowsett
; TITLE OF INVENTION: ANTISENSE MODULATION OF INDUCIBLE NITRIC OXIDE SYNTHASE
; TITLE OF INVENTION: EXPRESSION
; FILE REFERENCE: RTSP-0098
; CURRENT APPLICATION NUMBER: PCT/US01/01381A
; CURRENT FILING DATE: 2001-01-16
; PRIOR APPLICATION NUMBER: 09/4590,208
; PRIOR FILING DATE: 2000-01-24
; NUMBER OF SEQ ID NOS: 182
; SEQ ID NO 10
; LENGTH: 4145
; TYPE: DNA
; ORGANISM: Mus musculus
; FEATURE:
; NAME/KEY: mRNA
; LOCATION: (1)..(4110)
PCT-US01-01381A-10

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Query Match	100.0%	Score 4145	DB 1	Length 4145
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Db 1	CTGCTTTAAAAATCTCTCGGCACCTTTGTGTAGAGGAGCTGGGACAGTTCTAGACAGTCCCG	60		
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Db 121	AGCCAGCTGCACAGCCCCACAGTAGAAGAACATGTGAGCTCAATTCACAGATAAGTGCATTA	180		
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Db 181	GTGACCTGCTTTGTAAAGCCATAGAGATGGCTGTCTCTTGGAATTTCTGTTCAAGACCA	240		
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QY 301	CCTGTGCCACCTCCAGTCCAGTACAGACAGAGATGAGCTTCAGTATCAACAACCCACACAGGC	360		
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QY 361	AGCAGATAGTCCCGCAGGCCCTCTGTGGAGACGGGAAAGATCTCCAGATCTCTGG	420		
Db 361	AGCAGATAGTCCCGCAGGCCCTCTGTGGAGACGGGAAAGATCTCCAGATCTCTGG	420		
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Db 421	TCAAGCTGGATGCAACCCCATTTGTCTCTCCCAAGGCATGTGAGATCAAAAACTGGGCA	480		
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QY 541	CCAAATCTTGCCTGGGGTGCATTATGACTGCCAAAAAGTTTGACCAAGAGAGCCACGGGCA	600		

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Q	601	AGCCTAACCCCTCAGATGAGCTTACCTCAGCATATGAAATTTCTCAACAATTTACG	660
D	601	AGCCTAACCCCTCAGATGAGCTTACCTCAGCATATGAAATTTCTCAACAATTTACG	660
Q	661	GCTCTTCAAGAGGCAAAATAGAGCAATCTGGCCAGGCTGAGACGGTAAACAAAG	720
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Q	901	GTTACTCCACAATGAGCAATCAGTGGCCATCACCGTGTTCCTCCAGCGAGTG	960
D	901	GTTACTCCACAATGAGCAATCAGTGGCCATCACCGTGTTCCTCCAGCGAGTG	960
Q	961	ATGCAAGACAGACTCCGGGTGGGAATGCTCAGCTCCGCTATGCTGCTACCAAG	1020
D	961	ATGCAAGACAGACTCCGGGTGGGAATGCTCAGCTCCGCTATGCTGCTACCAAG	1020
Q	1021	TGCGAGATGAGCATCAGAGGGAGCCCTGCCACGTGGAATTCACCTCAGCTGTCATG	1080
D	1021	TGCGAGATGAGCATCAGAGGGAGCCCTGCCACGTGGAATTCACCTCAGCTGTCATG	1080
Q	1081	ACCTGGGCTGGAAGCCCAATGACGGCGCTTGATGTGTCTCCCTGCTGCTGAGGCA	1140
D	1081	ACCTGGGCTGGAAGCCCAATGACGGCGCTTGATGTGTCTCCCTGCTGCTGAGGCA	1140
Q	1141	ATGCGCGTACCTGAGCTCTTCAAAATCCACCTGACCTTGTGCTGAGTGGCCATGG	1200
D	1141	ATGCGCGTACCTGAGCTCTTCAAAATCCACCTGACCTTGTGCTGAGTGGCCATGG	1200
Q	1201	AACATCCCAAAATGCAAGTGTTCGGGAATCTGAGCTAAAGTGTACGCTGCTGAG	1260
D	1201	AACATCCCAAAATGCAAGTGTTCGGGAATCTGAGCTAAAGTGTACGCTGCTGAG	1260
Q	1261	TGGCCAAATGCTGTTGAGGTGGGGGCTGAGTCCAGGCTGCTGCAATGGCT	1320
D	1261	TGGCCAAATGCTGTTGAGGTGGGGGCTGAGTCCAGGCTGCTGCAATGGCT	1320
Q	1321	GGTACATGAGGCAAGATGAGTCCGGAGCTTGTGAGCTTCAGGCTCAACATCC	1380
D	1321	GGTACATGAGGCAAGATGAGTCCGGAGCTTGTGAGCTTCAGGCTCAACATCC	1380
Q	1381	TGGAGAGTGGGAGAGATGGGCTGGAACGCAACGTGGCTGCTGGAAG	1440
D	1381	TGGAGAGTGGGAGAGATGGGCTGGAACGCAACGTGGCTGCTGGAAG	1440
Q	1441	ACGAGCTGCTGTTGAGATCAACATGCTGATCATGTTTGAAGAGCAAGATGGA	1500
D	1441	ACGAGCTGCTGTTGAGATCAACATGCTGATCATGTTTGAAGAGCAAGATGGA	1500
Q	1501	CCATCATGAGACACACTGCTGCTGAGATCTTCATGAAATGCAATGCAATGCAATG	1560
D	1501	CCATCATGAGACACACTGCTGCTGAGATCTTCATGAAATGCAATGCAATGCAATG	1560
Q	1561	GGTCCGCTGGGGGCTGCGGAGAGTGGTGGCTGCTCCATGCTGAGAGCA	1620
D	1561	GGTCCGCTGGGGGCTGCGGAGAGTGGTGGCTGCTCCATGCTGAGAGCA	1620
Q	1621	TCACCCCGTGTTCACAGAGATGCTAAGTCTGCTGCTTCTACTACTATC	1680
D	1621	TCACCCCGTGTTCACAGAGATGCTAAGTCTGCTGCTTCTACTACTATC	1680
D	1621	TCACCCCGTGTTCACAGAGATGCTAAGTCTGCTGCTTCTACTACTATC	1680
Q	1681	AGGTAGAGGCTGGAAGAACCATGCTGGCAGAGACGAGAGCCAGACCAAGAGAG	1740
D	1681	AGGTAGAGGCTGGAAGAACCATGCTGGCAGAGACGAGAGCCAGACCAAGAGAG	1740
Q	1741	AGATTCATTTGAAGTCTTGTGGAAGCTGTCTTGTGCTGATGCTGAGTGGCAGA	1800
D	1741	AGATTCATTTGAAGTCTTGTGGAAGCTGTCTTGTGCTGATGCTGAGTGGCAGA	1800
Q	1801	CAATGGGCTCCGAGTACAGTCAACATCTCTTTCGACAGAGACAGAGAAATCAGAG	1860
D	1801	CAATGGGCTCCGAGTACAGTCAACATCTCTTTCGACAGAGACAGAGAAATCAGAG	1860
Q	1861	CGCTGGCTGGAGACTGGGGGCTTATTCAGTGTGCTTCAACCCCAAGTGTGTGCA	1920
D	1861	CGCTGGCTGGAGACTGGGGGCTTATTCAGTGTGCTTCAACCCCAAGTGTGTGCA	1920
Q	1921	TGATTAAGTACAGGCTGAGCTGCTGGAGAGAGAGAGGCTGTTGTGTGACAGTA	1980
D	1921	TGATTAAGTACAGGCTGAGCTGCTGGAGAGAGAGAGGCTGTTGTGTGACAGTA	1980
Q	1981	CGTTGGCAATGAGAGACTGCTGGCAATGAGAGAACTGAGAAATGCTCTCATGC	2040
D	1981	CGTTGGCAATGAGAGACTGCTGGCAATGAGAGAACTGAGAAATGCTCTCATGC	2040
Q	2041	TGAAGAGCTCAACCAAAATCAGTACGCTGTTGTGCTCGGCTCCAGCATGACC	2100
D	2041	TGAAGAGCTCAACCAAAATCAGTACGCTGTTGTGCTCGGCTCCAGCATGACC	2100
Q	2101	CTGGGTTCTGGCTTTGCTCATGACATTTATCAGAAAGCTGTCCACCTGGGGCTTTC	2160
D	2101	CTGGGTTCTGGCTTTGCTCATGACATTTATCAGAAAGCTGTCCACCTGGGGCTTTC	2160
Q	2161	AGCTCACCCGATGGAGAGAGGATGAGCTAGTGGGCGAGAGAGACCTTCCGACGT	2220
D	2161	AGCTCACCCGATGGAGAGAGGATGAGCTAGTGGGCGAGAGAGACCTTCCGACGT	2220
Q	2221	GGGCGGTGCAAACTTCAAGGACGCTGTGAGAGCTTGTGATGCGGAGCAACACACA	2280
D	2221	GGGCGGTGCAAACTTCAAGGACGCTGTGAGAGCTTGTGATGCGGAGCAACACACA	2280
Q	2281	TTGAGATCCCAAGCTTACACCTGCAATGATGACCTGGGACCCGACCACTACAGCTG	2340
D	2281	TTGAGATCCCAAGCTTACACCTGCAATGATGACCTGGGACCCGACCACTACAGCTG	2340
Q	2341	TGCAGACTCAGAGCTTTGAGCTTGCAGAAAGCCCTCAGACAGATGCAATGCCAAG	2400
D	2341	TGCAGACTCAGAGCTTTGAGCTTGCAGAAAGCCCTCAGACAGATGCAATGCCAAG	2400
Q	2401	TGTTCCACATGAGGCTCAAAATCTCGGAGATCTACAAATGCGACATCCAGCTGCA	2460
D	2401	TGTTCCACATGAGGCTCAAAATCTCGGAGATCTACAAATGCGACATCCAGCTGCA	2460
Q	2461	CCATTCCTGTGGAATCTCTGTGAGATGAGCCAAAGGCTGAACTACTGCTGGGGAGC	2520
D	2461	CCATTCCTGTGGAATCTCTGTGAGATGAGCCAAAGGCTGAACTACTGCTGGGGAGC	2520
Q	2521	ACCTTGGGTTTGGCCAGGCAACAGCGGCGCTGGTCCAAAGCATCTGAGAGCTGGA	2580
D	2521	ACCTTGGGTTTGGCCAGGCAACAGCGGCGCTGGTCCAAAGCATCTGAGAGCTGGA	2580
Q	2581	TGATGAGCCGACACCCACACAGACAGTGGCTGAGAGACCTGATGAGATGGAGCT	2640
D	2581	TGATGAGCCGACACCCACACAGACAGTGGCTGAGAGACCTGATGAGATGGAGCT	2640
Q	2641	ACTGGGTGAGTGAACAAGGCTGCCCCCTGCTACTACAGCAGGCTTACTACTCC	2700
D	2641	ACTGGGTGAGTGAACAAGGCTGCCCCCTGCTACTACAGCAGGCTTACTACTCC	2700
Q	2701	CGGACATCACACACCCCAACCCAGTGGCTGCTCCAAAGCTGGGCGAGGCGACCA	2760
D	2701	CGGACATCACACACCCCAACCCAGTGGCTGCTCCAAAGCTGGGCGAGGCGACCA	2760

QY 2761 AAGAGCTGAGAGACAGAGAGGCTGTGAGGCCCTGTGCCAGCCCTCAGAGTACACAGAGTGA 2820
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 Db 2761 AAGAGCTGAGAGACAGAGAGGCTGTGAGGCCCTGTGCCAGCCCTCAGAGTACACAGAGTGA 2820
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 Db 2821 AGTTACACACAGAGCCACATTTCTGAGAGGTCTAGAGAGTTCCCGTCCCTGCGGGGT 2880
 QY 2881 CTGTGGCTTCTGCTTCCAGCTCCCATTTCTGAGGCCCTGAGAGGCTTCTACTCCACT 2940
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 Db 2881 CTGTGGCTTCTGCTTCCAGCTCCCATTTCTGAGGCCCTGAGAGGCTTCTACTCCACT 2940
 QY 2941 CTTCCCGGATACACAGGCCACGAGATACACTGACTGTGGCCCTGTCTACCTACACA 3000
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 Db 2941 CTTCCCGGATACACAGGCCACGAGATACACTGACTGTGGCCCTGTCTACCTACACA 3000
 QY 3001 CCGAGATGCGCAGAGGTCCCTGTGCACACAGGTGTCTGCACACATGCTCAACAGCCTGA 3060
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 Db 3001 CCGAGATGCGCAGAGGTCCCTGTGCACACAGGTGTCTGCACACATGCTCAACAGCCTGA 3060
 QY 3061 AGCCCAAGACCCAGTGGCTTGTGGGAGATGCCAGGCCCTTCCACCTCCCGCAGG 3120
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 Db 3061 AGCCCAAGACCCAGTGGCTTGTGGGAGATGCCAGGCCCTTCCACCTCCCGCAGG 3120
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 Db 3121 ATCCCTCCATCTTGATCTCATCTGCGGCTGTGCACAGGATCGTGCCTTCCGACAT 3180
 QY 3181 TCTGGCAGACAGGCTCTCATCTGCCACACAGAGAGTGGGGAGCGGCATGACT 3240
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 Db 3181 TCTGGCAGACAGGCTCTCATCTGCCACACAGAGAGTGGGGAGCGGCATGACT 3240
 QY 3241 TGTGTGTTGGGTCGCGCGCCAGATGAGAGACACATCTACAGAGAGAGATGCTGAGGA 3300
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 Db 3241 TGTGTGTTGGGTCGCGCGCCAGATGAGAGACACATCTACAGAGAGAGATGCTGAGGA 3300
 QY 3301 TGGCCAGAGAGGGGTGCTGTGCATGCGGGTGACACAGCCTATTCGCGCTGGCAAGC 3360
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 Db 3301 TGGCCAGAGAGGGGTGCTGTGCATGCGGGTGACACAGCCTATTCGCGCTGGCAAGC 3360
 QY 3361 CCAAGTCTATGTTAGAGACATCTCGCGGACAGACTGGCCAGAGAGTGTCTGCTGTGC 3420
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 Db 3361 CCAAGTCTATGTTAGAGACATCTCGCGGACAGACTGGCCAGAGAGTGTCTGCTGTGC 3420
 QY 3421 TCCACAGAGAGCCAGGACCTCTATGTTTGGGGAGTGTGGCATGTGCGCGGAGCAGTG 3480
 |||||
 Db 3421 TCCACAGAGAGCCAGGACCTCTATGTTTGGGGAGTGTGGCATGTGCGCGGAGCAGTG 3480
 QY 3481 CCCACACCTGAGAGAGCTGTGCTGCCAAGCTGAAATTGAATGAGAGAGAGTGCAGG 3540
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 Db 3481 CCCACACCTGAGAGAGCTGTGCTGCCAAGCTGAAATTGAATGAGAGAGAGTGCAGG 3540
 QY 3541 ACTATTTCTTCAAGTCAAGAGCCGAGAGCCCTATCAGAGATATCTTGGTGTGTAT 3600
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 Db 3541 ACTATTTCTTCAAGTCAAGAGCCGAGAGCCCTATCAGAGATATCTTGGTGTGTAT 3600
 QY 3601 TTCTTACGAGGCGAAGAGACAGAGTGTGGGTGACAGCCAGCAGCTGTGAGATGTAG 3660
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 Db 3601 TTCTTACGAGGCGAAGAGACAGAGTGTGGGTGACAGCCAGCAGCTGTGAGATGTAG 3660
 QY 3661 CGCTTGAGGGCTTACAGAGAGGGTTAAAGCTGCCGACACAGAACTTAAGATGAGCCA 3720
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 Db 3661 CGCTTGAGGGCTTACAGAGAGGGTTAAAGCTGCCGACACAGAACTTAAGATGAGCCA 3720
 QY 3721 GCTTGCATTATCTGAGTCAAGAGGCGGGGAGATGAGAGAAAGTATATCCCGCAGC 3780
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 Db 3721 GCTTGCATTATCTGAGTCAAGAGGCGGGGAGATGAGAGAAAGTATATCCCGCAGC 3780
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QY 3841 GTACACCCTGATTTGATGAGAGGCTCTCTCTCAAACTGGGGCTTCCGTCCTTGG 3900
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 Db 3841 GTACACCCTGATTTGATGAGAGGCTCTCTCTCAAACTGGGGCTTCCGTCCTTGG 3900
 QY 3901 AGACAAATCTTAATGAGAGGCTGTGAGAGTGTGAGAGAGTGAATCTGTGCTGAGT 3960
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 Db 3901 AGACAAATCTTAATGAGAGGCTGTGAGAGTGTGAGAGAGTGAATCTGTGCTGAGT 3960
 QY 3961 GCACCACTTCAAGTACAGACACAGAGAGTGTATGCGACCACTGTATTTAACTGCTTG 4020
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 Db 3961 GCACCACTTCAAGTACAGACACAGAGAGTGTATGCGACCACTGTATTTAACTGCTTG 4020
 QY 4021 TGTACATTTATTTATGCTCTGTATTTAAATACTAACCCAGTGTGCTCCCATGGCC 4080
 |||||
 Db 4021 TGTACATTTATTTATGCTCTGTATTTAAATACTAACCCAGTGTGCTCCCATGGCC 4080
 QY 4081 ACTTGGTCTTCCCTGTATGATTCCTGATGAGATATTTACATGATTTGATTTACTT 4140
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 Db 4081 ACTTGGTCTTCCCTGTATGATTCCTGATGAGATATTTACATGATTTGATTTACTT 4140
 QY 4141 TAAATC 4145
 |||||
 Db 4141 TAAATC 4145

RESULT 3

US-08-630-798-1

Sequence 1, Application US/08630798

GENERAL INFORMATION:

APPLICANT: Timothy R. Billiar

APPLICANT: Edith Tzeng

APPLICANT: Andreas K. Nussler

APPLICANT: David A. Geller

APPLICANT: Richard K. Simmons

APPLICANT: Larry L. Shears II

TITLE OF INVENTION: Inducible Nitric Oxide Synthase

TITLE OF INVENTION: Gene for Treatment of Disease

NUMBER OF SEQUENCES: 2

CORRESPONDENCE ADDRESS:

ADDRESSEE: Lewis F. Gould, Jr.

ADDRESS: Eckert Seamans Cherin & Mellott

STREET: 1700 Market Street, Suite 3232

CITY: Philadelphia

STATE: PA

COUNTRY: USA

ZIP: 19103

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/630,798

FILING DATE:

CLASSIFICATION: 436

ATTORNEY/AGENT INFORMATION:

NAME: Gould, Lewis F. Jr.

REGISTRATION NUMBER: 25,057

REFERENCE/DOCKET NUMBER: 119130-2

TELECOMMUNICATION INFORMATION:

TELEPHONE: (215) 575-6020

TELEFAX: (215) 575-6015

TELEX:

INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:

LENGTH: 4145 base pairs

TYPE: nucleic acid

STRANDEDNESS: double

TOPOLOGY: linear

MOLECULE TYPE: cDNA

DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide

SYNTHESIS: Synthase cDNA Clone

HYPOTHETICAL: NO

ANTI-SENSE: NO
 ORIGINAL SOURCE: Induced Human Hepatocyte RNA
 TISSUE TYPE: Induced Human Hepatocyte RNA
 IMMEDIATE SOURCE: Lambda Zap II cDNA
 LIBRARY: Lambda Zap II cDNA
 CLONE: PHINOS
 POSITION IN GENOME:
 CHROMOSOME/SEGMENT: unknown
 MAP POSITION: unknown
 UNITS: unknown
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 207..3668
 IDENTIFICATION METHOD: Experiment
 US-08-630-798-1

Query Match 100.0%; Score 4145; DB 10; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTGGCCACCTTTGATGAGGGAGTGGGACGTTCTAGACAGTCCCG 60
 Db 1 CTGCTTTAAATCTCTGGCCACCTTTGATGAGGGAGTGGGACGTTCTAGACAGTCCCG 60
 QY 61 AAGTTCTCAAGCAGACAGTCTCTCTGTTGACTGTCTTACCCTGGGAGGAGTGC 120
 Db 61 AAGTTCTCAAGCAGACAGTCTCTCTGTTGACTGTCTTACCCTGGGAGGAGTGC 120
 QY 121 AGCCAGCTCAGAGCCAGCAGTGAAGAACATCTGAGCTCAATCCAGATAGTGCATTA 180
 Db 121 AGCCAGCTCAGAGCCAGCAGTGAAGAACATCTGAGCTCAATCCAGATAGTGCATTA 180
 QY 181 GTGACCTGCTTTGTAAGGCATAGAGTGGCTGTCTTGGAAATTTCTGTTCAAGACA 240
 Db 181 GTGACCTGCTTTGTAAGGCATAGAGTGGCTGTCTTGGAAATTTCTGTTCAAGACA 240
 QY 241 AATTCACACAGTATGATGATGGGGAAGAAAGACATCAACACATCTGGAAGAGCCC 300
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 Db 361 AGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 420
 QY 421 TCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
 Db 421 TCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
 QY 481 GCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 540
 Db 481 GCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 540
 QY 541 CCAAAATCTGCTGGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 600
 Db 541 CCAAAATCTGCTGGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 600
 QY 601 AGCCTACCCCTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 660
 Db 601 AGCCTACCCCTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 660
 QY 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCTGGCCAGGTTGGAACGCTTAACAAG 720
 Db 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCTGGCCAGGTTGGAACGCTTAACAAG 720
 QY 721 AGATGAAACAAAGAGAACATCTGAGGAGGATGATGATGATGATGATGATGATGAT 780
 Db 721 AGATGAAACAAAGAGAACATCTGAGGAGGATGATGATGATGATGATGATGATGAT 780
 QY 781 AGGCTGGGCAATGCGCCAGCCTGATGGAGGATGATGATGATGATGATGATGATGAT 840

Db 781 AGGCTGGGCAATGCGCCAGCCTGATGGAGGATGATGATGATGATGATGATGATGAT 840
 QY 841 TCGATGCGCCAGAGTGTTCAGTGGCCGGGAAATGTTGAACATCTGAGACAGTGC 900
 Db 841 TCGATGCGCCAGAGTGTTCAGTGGCCGGGAAATGTTGAACATCTGAGACAGTGC 900
 QY 901 GTTACTCCACCAACATGGAACATCAGTGGCCATCAGCCTGTTCCCCAGCGAGTG 960
 Db 901 GTTACTCCACCAACATGGAACATCAGTGGCCATCAGCCTGTTCCCCAGCGAGTG 960
 QY 961 ATGCAAGCAGACGATTCGCGGTTGGAATCTGATGATGATGATGATGATGATGATGAT 1020
 Db 961 ATGCAAGCAGACGATTCGCGGTTGGAATCTGATGATGATGATGATGATGATGATGAT 1020
 QY 1021 TGCCAGATGCGAGATCAGAGGAGGACCTGCAACGGAATTCATCAGCTGTCATG 1080
 Db 1021 TGCCAGATGCGAGATCAGAGGAGGACCTGCAACGGAATTCATCAGCTGTCATG 1080
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 Db 1081 ACCTGGGCTGGAAGCCCAAGTACGCGCTTCGATGATGATGATGATGATGATGATGAT 1140
 QY 1141 ATGCGCGTGAACCTGAGCTTTGAAATCCACCTGATGATGATGATGATGATGATGAT 1200
 Db 1141 ATGCGCGTGAACCTGAGCTTTGAAATCCACCTGATGATGATGATGATGATGATGAT 1200
 QY 1201 AACATCCCAATGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1260
 Db 1201 AACATCCCAATGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1260
 QY 1261 TGCCCAACATGCTGTTGAGTGGGCGCTGAGATGATGATGATGATGATGATGATGAT 1320
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 QY 1381 TGGAGAGTGGGCGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1440
 Db 1381 TGGAGAGTGGGCGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1440
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 Db 1441 ACCAGGCTGCTGTTGAGATCAGATGATGATGATGATGATGATGATGATGATGATGAT 1500
 QY 1501 CCAATGATGAGCAACCACTGCGGTCAGAAATCTTCATGAAATGATGATGATGATGAT 1560
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 QY 1561 GGTCCGCTGGGCGCTGCGGCGAGACTGATGATGATGATGATGATGATGATGATGATGAT 1620
 Db 1561 GGTCCGCTGGGCGCTGCGGCGAGACTGATGATGATGATGATGATGATGATGATGATGAT 1620
 QY 1621 TCAACCCCGTGTTCACAGAGATGCTGACTGATGATGATGATGATGATGATGATGAT 1680
 Db 1621 TCAACCCCGTGTTCACAGAGATGCTGACTGATGATGATGATGATGATGATGATGAT 1680
 QY 1681 AGGTAGAGGCTGGAAGAACCAATGCTGAGAGGAGAGAGAGAGAGAGAGAGAGAGAG 1740
 Db 1681 AGGTAGAGGCTGGAAGAACCAATGCTGAGAGGAGAGAGAGAGAGAGAGAGAGAGAG 1740
 QY 1741 AGATTCATTTGAAGAGTGTTCGTAAGAGTGTTCGTAAGAGTGTTCGTAAGAGTGTTC 1800
 Db 1741 AGATTCATTTGAAGAGTGTTCGTAAGAGTGTTCGTAAGAGTGTTCGTAAGAGTGTTC 1800
 QY 1801 CAATGGGCTCCGAGTCAAGATCAGATCCTTTGCGAGAGAGAGAGAGAGAGAGAGAGAG 1860
 Db 1801 CAATGGGCTCCGAGTCAAGATCAGATCCTTTGCGAGAGAGAGAGAGAGAGAGAGAGAG 1860
 QY 1861 CGCTGGCTGGGAGCTGGGAGCTTATGAGCTGCTTCAACCCCAAGGTTGCTGGA 1920

Db 1861 CGCTGAGCTGGAGACCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGGTGTGTGCA 1920
Qy 1921 TGGATTAAGTACAGGCTGAGACTGCTGGAGAGAGAGCGGTGCTGTGGTGGTGGACAGTA 1980
Db 1921 TGGATTAAGTACAGGCTGAGACTGCTGGAGAGAGAGCGGTGCTGTGGTGGTGGACAGTA 1980
Qy 1981 CGTTTGGCAATGAGAGACTGCTGGCAATGAGAGAGAGAAATGAAAGAAATGCTTTCATGC 2040
Db 1981 CGTTTGGCAATGAGAGACTGCTGGCAATGAGAGAGAGAAATGAAAGAAATGCTTTCATGC 2040
Qy 2041 TGAAGAGCTCAACAACAATTCAGGTACGCTGTGTGGCTCGGCTCCAGCATGTACCC 2100
Db 2041 TGAAGAGCTCAACAACAATTCAGGTACGCTGTGTGGCTCGGCTCCAGCATGTACCC 2100
Qy 2101 CTGCGTTCGCGCTTGGCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 2160
Db 2101 CTGCGTTCGCGCTTGGCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 2160
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Db 2221 GGGCCGTGCAAACTTCAG 2280
Qy 2281 TTGAGATCCCGAGCTCTACCTGATGATGATGATGATGATGATGATGATGATGATGATG 2340
Db 2281 TTGAGATCCCGAGCTCTACCTGATGATGATGATGATGATGATGATGATGATGATGATG 2340
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Db 2341 TGCAGAGACTCACAGCTTGGAGCTGAGCAAAAGCCCTCAGCAGCATGATGCAATGCAAGAG 2400
Qy 2401 TGTTCACCATGAGAGCTCAAAATCTGGCAGATATCTACAAAGTCCGATCAGAGCGGCA 2460
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Qy 2461 CCATCCGTGAGAGCTCTGAG 2520
Db 2461 CCATCCGTGAGAGCTCTGAG 2520
Qy 2521 ACCTTGGGGTTTGGCCAGGCAACAGCGGCTGTGCTCAAAAGCTGGAAGCGAGTGG 2580
Db 2521 ACCTTGGGGTTTGGCCAGGCAACAGCGGCTGTGCTCAAAAGCTGGAAGCGAGTGG 2580
Qy 2581 TGGATGGCCCCACACCCACAG 2640
Db 2581 TGGATGGCCCCACACCCACAG 2640
Qy 2641 ACTGGGCTGAG 2700
Db 2641 ACTGGGCTGAG 2700
Qy 2701 CGGACATCACACACCCCAACAG 2760
Db 2701 CGGACATCACACACCCCAACAG 2760
Qy 2761 AAGAGCTGAG 2820
Db 2761 AAGAGCTGAG 2820
Qy 2821 AGTTACACACAG 2880
Db 2821 AGTTACACACAG 2880
Qy 2881 CTGCTGGCTTCGCTTTCAG 2940
Db 2881 CTGCTGGCTTCGCTTTCAG 2940
Qy 2941 CCTCCGGGATCACAG 3000
Db 2941 CCTCCGGGATCACAG 3000

Qy 3001 CCGAGATGGCCAGAGGTCCTGACACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3060
Db 3001 CCGAGATGGCCAGAGGTCCTGACACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3060
Qy 3061 AGCCCAAG 3120
Db 3061 AGCCCAAG 3120
Qy 3121 ATCCCTCCCATTCCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 3180
Db 3121 ATCCCTCCCATTCCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 3180
Qy 3181 TCTGGAG 3240
Db 3181 TCTGGAG 3240
Qy 3241 TGTGTGTTGGTGGCCGCCAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3300
Db 3241 TGTGTGTTGGTGGCCGCCAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3300
Qy 3301 TGGCCCAAG 3360
Db 3301 TGGCCCAAG 3360
Qy 3361 CCAAGGCTATGTTGAG 3420
Db 3361 CCAAGGCTATGTTGAG 3420
Qy 3421 TCCACAG 3480
Db 3421 TCCACAG 3480
Qy 3481 CCGACACCTGAG 3540
Db 3481 CCGACACCTGAG 3540
Qy 3541 ACTATTTCTTTCAGCTCAAG 3600
Db 3541 ACTATTTCTTTCAGCTCAAG 3600
Qy 3601 TTCTTTCAG 3660
Db 3601 TTCTTTCAG 3660
Qy 3661 GGGCTGAG 3720
Db 3661 GGGCTGAG 3720
Qy 3721 GCTTGCATTTATCTGAG 3780
Db 3721 GCTTGCATTTATCTGAG 3780
Qy 3781 CTCAGCTTTATTTCTTCAAG 3840
Db 3781 CTCAGCTTTATTTCTTCAAG 3840
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Db 4021 TGTAGAGATTTATGAG 4080

QY 4081 ACTGGGCTCTCCCTGATGATTCCTTGATGAGATATTATGATTCATTTACTT 4140
 Db 4081 ACTGGGCTCTCCCTGATGATTCCTTGATGAGATATTATGATTCATTTACTT 4140
 QY 4141 TAATC 4145
 Db 4141 TAATC 4145

RESULT 4

US-09-053-375B-110
 ; Sequence 110, Application US/09053375B
 ; GENERAL INFORMATION:
 ; APPLICANT: Chenchik, Alex
 ; APPLICANT: Bibilashvili, Robert
 ; TITLE OF INVENTION: Nucleic Acid Arrays
 ; FILE REFERENCE: CLON-006
 ; CURRENT APPLICATION NUMBER: US/09/053,375B
 ; CURRENT FILING DATE: 1998-08-31
 ; NUMBER OF SEQ ID NOS: 1543
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 110
 ; LENGTH: 4145
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-09-053-375B-110

Query Match 100.0%; Score 4145; DB 14; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTGGCCACCTTTGATGAGGAGCTGGGAGTCTTACAGATCCCG 60
 Db 1 CTGCTTTAAATCTCTGGCCACCTTTGATGAGGAGCTGGGAGTCTTACAGATCCCG 60
 QY 61 AAGTCTCAAGGACAGGCTCTCTCTGTTGACTGTCTTACCCGGGGAGGAGTGC 120
 Db 61 AAGTCTCAAGGACAGGCTCTCTCTGTTGACTGTCTTACCCGGGGAGGAGTGC 120
 QY 121 AGCCAGCTGCAAGCCCGACAGTGAAGACATCGAGCTCAAAATCCAGATTAAGTGA 180
 Db 121 AGCCAGCTGCAAGCCCGACAGTGAAGACATCGAGCTCAAAATCCAGATTAAGTGA 180
 QY 181 GTACCTGCTTTTAAAGCATAGAGATGCTCTTGAATTTCTGTTCAAGACA 240
 Db 181 GTACCTGCTTTTAAAGCATAGAGATGCTCTTGAATTTCTGTTCAAGACA 240
 QY 241 AATTCCACAGTATGCAATGAATGGGAAAAAGACATCAACAAATGTGGAAAAAGCC 300
 Db 241 AATTCCACAGTATGCAATGAATGGGAAAAAGACATCAACAAATGTGGAAAAAGCC 300
 QY 301 CCTGTCCACCTTCAGTCCAGTACAGAGATGACCTTCATATCAACACTCAGCAAGC 360
 Db 301 CCTGTCCACCTTCAGTCCAGTACAGAGATGACCTTCATATCAACACTCAGCAAGC 360
 QY 361 AGCAGATAGTCCCGGACGCCCTCTGTGGAGACGGGAAAAAGTCTCCAGATCTCG 420
 Db 361 AGCAGATAGTCCCGGACGCCCTCTGTGGAGACGGGAAAAAGTCTCCAGATCTCG 420
 QY 421 TCAAGCTGATGCAACCCCATTTGCTCTCCCAAGGAGTGTAGATTCAAAAAAGCTGG 480
 Db 421 TCAAGCTGATGCAACCCCATTTGCTCTCCCAAGGAGTGTAGATTCAAAAAAGCTGG 480
 QY 481 GGGGATGATTTCCAAAGACACTTCAACATTAAGGCCAAAGGATTTTAATTTAGCT 540
 Db 481 GGGGATGATTTCCAAAGACACTTCAACATTAAGGCCAAAGGATTTTAATTTAGCT 540
 QY 541 CCAATCTTGCTGGGCTCATTAATGACTCCAAAAAGTTTGAACAGAGAGCCAGGACA 600
 Db 541 CCAATCTTGCTGGGCTCATTAATGACTCCAAAAAGTTTGAACAGAGAGCCAGGACA 600
 QY 601 AGCTTACCCCTGCAGATGAGTCTTACCTCAAGCTATGAAATTTGTCAACCAATATTAC 660
 Db 601 AGCTTACCCCTGCAGATGAGTCTTACCTCAAGCTATGAAATTTGTCAACCAATATTAC 660

Db 601 AGCTTACCCCTGCAGATGAGTCTTACCTCAAGCTATGAAATTTGTCAACCAATATTAC 660
 QY 661 GCTCTTCAAGAGGCAAAATAGAGAACTGTGGCCAGGGTGGAGCGGTAACAAAG 720
 Db 661 GCTCTTCAAGAGGCAAAATAGAGAACTGTGGCCAGGGTGGAGCGGTAACAAAG 720
 QY 721 AGATGAAAAAAGAGAACTACCACTGACGGGAGATGACTCATCTGCGCCACCAAGC 780
 Db 721 AGATGAAAAAAGAGAACTACCACTGACGGGAGATGACTCATCTGCGCCACCAAGC 780
 QY 781 AGGCTGGGCAATGCCCCAGCTGCATGGGAGGATCCAGTGGTCCAACTGAGGTCT 840
 Db 781 AGGCTGGGCAATGCCCCAGCTGCATGGGAGGATCCAGTGGTCCAACTGAGGTCT 840
 QY 841 TCGATGCCCCGACGCTTCCACTGCGCGGAAATGTTTGAACACATCTGCAGACAGTGC 900
 Db 841 TCGATGCCCCGACGCTTCCACTGCGCGGAAATGTTTGAACACATCTGCAGACAGTGC 900
 QY 901 GTTACTCCCAACAAATGCAACATCAGTGGGCAATCCGCTGTCCTCCAGGGAGTG 960
 Db 901 GTTACTCCCAACAAATGCAACATCAGTGGGCAATCCGCTGTCCTCCAGGGAGTG 960
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 Db 1081 ACCTGGGCTGGAAGCCCAAGTACGCGCTTGCATGATGGTCCCTGCTGAGGCGCA 1140
 QY 1141 ATGGCCGTGACCTGTGAGCTCTTGAATTCACCTGACCTTGTGAGTGGCCATGG 1200
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 Db 1321 GGTACATGGGCAAGAGATGGAGTCCGGGACTTCTGTGACGTCCAGCGCTACACATCC 1380
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 Db 1381 TGGAGGAAGTGGGAGGAGATGGGCTTGAAGCGCAAGCTGGCTGCTGGAAAG 1440
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 Db 1621 TCAACCCCTGTGTTTACCAAGAGATGCTGAATACGTCCTGCTCTTCTACTATATC 1680
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1741 AGATTCCATTGAAAGCTTGTCAAGAGCTGTGCTCTTTGCTGTATGCTGATGCGAAGA 1800
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1801 CAATGCGTCCGAGTCAAGTACACCATCTCTTTGCGACAGACAGCAAGAAATACAGAG 1860
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1981 CGTTTGGCAATGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2040
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3781 CTTCAAGCTTATTTCTGAGTACAGAGGCTTACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3840
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QY 3961 GCACCACTTAAGTACAGGAGAGTGTATGACCACTGTGATTAATGCTGCTTG 4020
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Db 4081 ACTGGGCTTCCCTGATGATTCCTTGATGAGATTAATTAATGATTAATGCTT 4140
QY 4141 TAATC 4145
Db 4141 TAATC 4145

RESULT 5

US-09-176-496-1
Sequence 1, Application US/09176496A
GENERAL INFORMATION:
APPLICANT: Billiar, Timothy R.
APPLICANT: Tzeng, Edith
APPLICANT: Nussler, Andreas K.
APPLICANT: Geller, David A.
APPLICANT: Simmons, Richard K.
APPLICANT: Shears II, Larry L.
TITLE OF INVENTION: Inducible Nitric Oxide Synthase Gene for Treatment of
FILE REFERENCE: 187868
CURRENT APPLICATION NUMBER: US/09/176,496A
EARLIER FILING DATE: 1998-10-21
EARLIER APPLICATION NUMBER: 08/465,522
EARLIER FILING DATE: 1995-06-05
EARLIER APPLICATION NUMBER: 08/314,917
EARLIER FILING DATE: 1994-09-28
EARLIER APPLICATION NUMBER: 07/981,344
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patent Ver. 2.0
SEQ ID NO 1
LENGTH: 4145
TYPE: DNA
ORGANISM: Induced Human Hepatocyte RNA
FEATURE:
NAME/KEY: CDS
LOCATION: (207)..(3668)
US-09-176-496-1

Query Match 100.0%; Score 4145; DB 15; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTCGGCCACCTTTGATGAGGGAAGTCTGAGACAGTCCG 60
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Db 301 CCGTGCCACCTCCAGTCCAGTGCAGTGAACAGATGACCTTCAGTATCACACCTGCAAGC 360
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Db 361 AGCAGATGATGATCCCGGAGCCCTGCTGAGAGAGGGAAGAAAGTCTCCAGATCTGG 420
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2941 CCGCCGGGATCAACGAGCCCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3000
3001 CCGGAGATGGCCAGGATCCCTGACACAGAGTGTGTGAGACATGAGCTCAACAGCTGA 3060
3001 CCGGAGATGGCCAGGATCCCTGACACAGAGTGTGTGAGACATGAGCTCAACAGCTGA 3060
3061 AGCCCAAG 3120
3061 AGCCCAAG 3120
3121 ATCCCTCCATCTCTGATCTCATATCGAGGCTGAGGACAGAGATGAGGCTTCCAGATT 3180
3121 ATCCCTCCATCTCTGATCTCATATCGAGGCTGAGGACAGAGATGAGGCTTCCAGATT 3180
3181 TGTGAG 3240
3181 TGTGAG 3240
3241 TGTGAG 3300
3241 TGTGAG 3300
3301 TGGCCAG 3360
3301 TGGCCAG 3360

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QY 3361 CCAAGCTATATGTTACAGACATCTCTGCGACAGCTGGCCAGCGAGTGTCCGCTGTC 3420
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Db 3361 CCAAGCTATATGTTACAGACATCTCTGCGACAGCTGGCCAGCGAGTGTCCGCTGTC 3420
QY 3421 TCCACAGAGAGCGAGCGACCTCTATGTTTGGGGGATGTGGCATGCCCCGGAGAGTGG 3480
    |||
Db 3421 TCCACAGAGAGCGAGCGACCTCTATGTTTGGGGGATGTGGCATGCCCCGGAGAGTGG 3480
QY 3481 CCCACACCTGAGAGCAGCTGTGGCTGCGCAACCTGAAATGTAATGAGAGAGAGTGGAGG 3540
    |||
Db 3481 CCCACACCTGAGAGCAGCTGTGGCTGCGCAACCTGAAATGTAATGAGAGAGAGTGGAGG 3540
QY 3541 ACTATTTCTTACGCTCAAGAGCCAGAAAGCGCTATACAGAAAGATATCTTGGTGTAT 3600
    |||
Db 3541 ACTATTTCTTACGCTCAAGAGCCAGAAAGCGCTATACAGAAAGATATCTTGGTGTAT 3600
QY 3601 TTCCTTACAGAGCGAAGAAAGAGAGAGTGGGCTGACGCCAGCCAGCTGAGATGTAG 3660
    |||
Db 3601 TTCCTTACAGAGCGAAGAAAGAGAGAGTGGGCTGACGCCAGCCAGCTGAGATGTAG 3660
QY 3661 CGCTCTGAGGGCCCTACAGAGGGGTTAAAGCTGCCGACAGAACTTAAGATGGAGCA 3720
    |||
Db 3661 CGCTCTGAGGGCCCTACAGAGGGGTTAAAGCTGCCGACAGAACTTAAGATGGAGCA 3720
QY 3721 GCTCGCATATATCTAGGTACAGGGGCTGGGAGATGAGAGAAAGTATATCCCGAGC 3780
    |||
Db 3721 GCTCGCATATATCTAGGTACAGGGGCTGGGAGATGAGAGAAAGTATATCCCGAGC 3780
QY 3781 CTCAGCTTATATCTCTCAAGCTGTGCTCCCATCAAGCCCTTACTTACTTACTTAAACAA 3840
    |||
Db 3781 CTCAGCTTATATCTCTCAAGCTGTGCTCCCATCAAGCCCTTACTTACTTACTTAAACAA 3840
QY 3841 GTAGACCCCTGATGATGAGAGGCTCTCTCTCAAACTGGGGCTCCCTGCTTGG 3900
    |||
Db 3841 GTAGACCCCTGATGATGAGAGGCTCTCTCTCAAACTGGGGCTCCCTGCTTGG 3900
QY 3901 AGACAAATCTTAATGCGAGGCTGGGAGTGGGTGAAGATGGAAGTCTGTCTAGT 3960
    |||
Db 3901 AGACAAATCTTAATGCGAGGCTGGGAGTGGGTGAAGATGGAAGTCTGTCTAGT 3960
QY 3961 GCACCACTTCAAGTACACAGAGAGGTGCTATGCGACCACTGTATTTAACTGCTTGG 4020
    |||
Db 3961 GCACCACTTCAAGTACACAGAGAGGTGCTATGCGACCACTGTATTTAACTGCTTGG 4020
QY 4021 TGTACAGTATTTATGCTCTGTATTTAAAAAATAACACCCAGTCTGTCCCATGGCC 4080
    |||
Db 4021 TGTACAGTATTTATGCTCTGTATTTAAAAAATAACACCCAGTCTGTCCCATGGCC 4080
QY 4081 ACTTGGTCTTCCCTGTATGATTTCTTGTATGAGATATTTACATGAATTTGATTTACTT 4140
    |||
Db 4081 ACTTGGTCTTCCCTGTATGATTTCTTGTATGAGATATTTACATGAATTTGATTTACTT 4140
QY 4141 TAATC 4145
    |||
Db 4141 TAATC 4145

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; LENGTH: 4145
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-09-440-302B-724

Query Match      100.0%; Score 4145; DB 18; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATATCTCTGCGACCTTTGATGAGGGAGTGGAGTGTACAGACATGACACCG 60
    |||
Db 1 CTGCTTTAAATATCTCTGCGACCTTTGATGAGGGAGTGGAGTGTACAGACATGACACCG 60
QY 61 AAGTTCGAAGGAGCAGAGTCTTCTGTTTACATGCTCTTACCCCGGGAGGAGTGC 120
    |||
Db 61 AAGTTCGAAGGAGCAGAGTCTTCTGTTTACATGCTCTTACCCCGGGAGGAGTGC 120
QY 121 AGCCAGCTGCAAGCCACAGAGTGAAGACATGAGCTCAAAATCCAGATTAAGTACATTA 180
    |||
Db 121 AGCCAGCTGCAAGCCACAGAGTGAAGACATGAGCTCAAAATCCAGATTAAGTACATTA 180
QY 181 GTGACCTGCTTTTAAAGCCATAGAGATGAGTGCCTGCTTGAATTTCTTCAAGACCA 240
    |||
Db 181 GTGACCTGCTTTTAAAGCCATAGAGATGAGTGCCTGCTTGAATTTCTTCAAGACCA 240
QY 241 AATTCCACAGTATGCAATGAATGGGAAAAAGACATCAACAATGTGAGAAAGCCC 300
    |||
Db 241 AATTCCACAGTATGCAATGAATGGGAAAAAGACATCAACAATGTGAGAAAGCCC 300
QY 301 CCTGTGCCACTCTCACTGACAGTACAGAGATGACCTTGAATATCAACATCCAGACAGC 360
    |||
Db 301 CCTGTGCCACTCTCACTGACAGTACAGAGATGACCTTGAATATCAACATCCAGACAGC 360
QY 361 AGCAGAAATAGTCCCGGACGCCCTGTGTGAGACGGGAAAAAGATCTCAGAAATCTGG 420
    |||
Db 361 AGCAGAAATAGTCCCGGACGCCCTGTGTGAGACGGGAAAAAGATCTCAGAAATCTGG 420
QY 421 TCAAGCTGATGCAACCCCATTTGCTCCCGACGGGATGTGAGATTCAAAAAATCTGGGCA 480
    |||
Db 421 TCAAGCTGATGCAACCCCATTTGCTCCCGACGGGATGTGAGATTCAAAAAATCTGGGCA 480
QY 481 GCGGATGACTTCCACAGACACTTCAACATTAAGGCAAAAGATTTAACTTGCAGAGT 540
    |||
Db 481 GCGGATGACTTCCACAGACACTTCAACATTAAGGCAAAAGATTTAACTTGCAGAGT 540
QY 541 CCAAAATCTTGGCTGGGGTCCATTTAGTACCTCCCAAAAGTTTGAACAGAGACCCAGGACA 600
    |||
Db 541 CCAAAATCTTGGCTGGGGTCCATTTAGTACCTCCCAAAAGTTTGAACAGAGACCCAGGACA 600
QY 601 AGCCTACCCCTCAGATGAGCTTCTTACCTCAAGCTATGAAATTTGTCAACCAATATTAG 660
    |||
Db 601 AGCCTACCCCTCAGATGAGCTTCTTACCTCAAGCTATGAAATTTGTCAACCAATATTAG 660
QY 661 GCTCTTCAAGAGGCAAAATAGAGAACTCTGCGCAGGGGTGAAGCGGTAAACAAAG 720
    |||
Db 661 GCTCTTCAAGAGGCAAAATAGAGAACTCTGCGCAGGGGTGAAGCGGTAAACAAAG 720
QY 721 AGATGAAGAAACAAGAGACTTACCACTGACGGGAGATGAGCTATCTGCGCCACAGC 780
    |||
Db 721 AGATGAAGAAACAAGAGACTTACCACTGACGGGAGATGAGCTATCTGCGCCACAGC 780
QY 781 AGCCTGCGCAATGCCCCAGCTGATGAGAGATGCAATGATGATGATGATGATGATGATG 840
    |||
Db 781 AGCCTGCGCAATGCCCCAGCTGATGAGAGATGCAATGATGATGATGATGATGATGATG 840
QY 841 TCGATGCGCGAGCTGTTCCATGCGCGGAAAGTTTGAACATCTGACAGACAGCTGC 900
    |||
Db 841 TCGATGCGCGAGCTGTTCCATGCGCGGAAAGTTTGAACATCTGACAGACAGCTGC 900
QY 901 GTTACTCCACCAACAATGAGCAATGAGTGCAGTGCAGCTACACAGTGTCCCGCAGCGAGTG 960
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Db 901 GTTACTCCACCAACAATGAGCAATGAGTGCAGTGCAGCTACACAGTGTCCCGCAGCGAGTG 960

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RESULT 7
US-09-440-302B-724
; Sequence 724, Application US/09440302B
; GENERAL INFORMATION:
; APPLICANT: Chenchik, Alex
; APPLICANT: Lukashyev, Matvey E.
; TITLE OF INVENTION: Human Neurobiology Array
; FILE REFERENCE: CION-006CIP11
; CURRENT APPLICATION NUMBER: US/09/440.302B
; PRIOR FILING DATE: 1999-11-17
; PRIOR APPLICATION NUMBER: 09/053.375
; NUMBER OF SEQ ID NOS: 1193
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 724

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[illegible]

QY 781 AGGCGTGGCGCAATGCCCGACGCTGATTTGGAGAGATCCAGTGTGCCAACCTGCAAGTCT 840
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Db 781 AGGCGTGGCGCAATGCCCGACGCTGATTTGGAGAGATCCAGTGTGCCAACCTGCAAGTCT 840
QY 841 TGGATGCCCCGAGCTGTTCCACTGCGCGGGAATGTTTGAACACATCTGCACAGACGTCG 900
|||||
Db 841 TGGATGCCCCGAGCTGTTCCACTGCGCGGGAATGTTTGAACACATCTGCACAGACGTCG 900
QY 901 GTTACTCCAAACAATGAGCAATCAGTTCGCGCATCCGCTGTTTCCCGACGAGAGTG 960
|||||
Db 901 GTTACTCCAAACAATGAGCAATCAGTTCGCGCATCCGCTGTTTCCCGACGAGAGTG 960
QY 961 ATGGCAAGACAGCACTTCGCGGTGTGGAATGCTCAGTCTATCCGCTATGCTGCTACCGAGA 1020
|||||
Db 961 ATGGCAAGACAGCACTTCGCGGTGTGGAATGCTCAGTCTATCCGCTATGCTGCTACCGAGA 1020
QY 1021 TGGCAATGAGCAATCAGAGAGGAGGACCTGCCAACGCTGGAATTCACCTCAGCTGTGATCG 1080
|||||
Db 1021 TGGCAATGAGCAATCAGAGAGGAGGACCTGCCAACGCTGGAATTCACCTCAGCTGTGATCG 1080
QY 1081 ACCTGGGCTGGAGAGCCCAAGTACGCGCGCTTGATGTGCTCCCGTGTCTGCAAGGCA 1140
|||||
Db 1081 ACCTGGGCTGGAGAGCCCAAGTACGCGCGCTTGATGTGCTCCCGTGTCTGCAAGGCA 1140
QY 1141 ATGGCGGTGACCTGAGCTCTTGAATCCACCTGACCTGCTGCTGAGGAGGAGGATG 1200
|||||
Db 1141 ATGGCGGTGACCTGAGCTCTTGAATCCACCTGACCTGCTGCTGAGGAGGAGGATG 1200
QY 1201 AACATCCCAATACGAGTGTGCTGCGGAATGAGCTAAAGTGTACGCGCTGCTGCAAG 1260
|||||
Db 1201 AACATCCCAATACGAGTGTGCTGCGGAATGAGCTAAAGTGTACGCGCTGCTGCAAG 1260
QY 1261 TGGCCAAACATGCTGCTTGAAGTGGGCGGCTGGAAGTTCGAGGAGTCCCTTCAATGGCT 1320
|||||
Db 1261 TGGCCAAACATGCTGCTTGAAGTGGGCGGCTGGAAGTTCGAGGAGTCCCTTCAATGGCT 1320
QY 1321 GGTACATGAGGACAGAGATGAGATCGGAGCTTCTGTGACGTCAGCGCTACACATCC 1380
|||||
Db 1321 GGTACATGAGGACAGAGATGAGATCGGAGCTTCTGTGACGTCAGCGCTACACATCC 1380
QY 1381 TGGAGAAAGTGGGAGAGAGATGGGCTGGAAGCGCAAGCTGGCTGCTGGAAG 1440
|||||
Db 1381 TGGAGAAAGTGGGAGAGAGATGGGCTGGAAGCGCAAGCTGGCTGCTGGAAG 1440
QY 1441 ACCAGGCTGTCTGATCAACATTTGCTGTGATCCATGATTTTCAAGACAGAGATGTA 1500
|||||
Db 1441 ACCAGGCTGTCTGATCAACATTTGCTGTGATCCATGATTTTCAAGACAGAGATGTA 1500
QY 1501 CCATCATGAGACACACACCTGCTGCAATCTCTCATGAAGTACATGCAATGATATCC 1560
|||||
Db 1501 CCATCATGAGACACACACCTGCTGCAATCTCTCATGAAGTACATGCAATGATATCC 1560
QY 1561 GGTCCCGTGGGAGGCTGCGCGGAGAGTGGATTTGGCTGTGCTCCCATGTCTGGAGCA 1620
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Db 1561 GGTCCCGTGGGAGGCTGCGCGGAGAGTGGATTTGGCTGTGCTCCCATGTCTGGAGCA 1620
QY 1621 TCACCCCGTGTTCACACAGAGATGCTGATACGTGCTGCTGCTTCTACTACTATC 1680
|||||
Db 1621 TCACCCCGTGTTCACACAGAGATGCTGATACGTGCTGCTGCTTCTACTACTATC 1680
QY 1681 AGGTAGAGGCTGGAACACCATGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
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Db 1681 AGGTAGAGGCTGGAACACCATGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
QY 1741 AGATTCCATTGAAGCTTTGGTCAAAAGCTGTGCTCTTGTCTGATGCTGATGCGCAAGA 1800
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Db 1741 AGATTCCATTGAAGCTTTGGTCAAAAGCTGTGCTCTTGTCTGATGCTGATGCGCAAGA 1800
QY 1801 CAATGGCGTCCGAGTCAAGATCAACATCTTGGAGAGAGAGAGAGAGAGAGAGAGAG 1860
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Db 1801 CAATGGCGTCCGAGTCAAGATCAACATCTTGGAGAGAGAGAGAGAGAGAGAGAGAGAG 1860

QY 1861 CGCTGGCTGGGAGCTGGGAGGCTTATTCAGTGTGCTTCAACCCCAAGTGTCTGCA 1920
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Db 1861 CGCTGGCTGGGAGCTGGGAGGCTTATTCAGTGTGCTTCAACCCCAAGTGTCTGCA 1920
QY 1921 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
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Db 1921 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
QY 1981 CGTTTGGCAATGAGAGTGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
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Db 1981 CGTTTGGCAATGAGAGTGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
QY 2041 TGAAGAGCTCAACAAATTCAGTACGCTGTGTTGGCTGCTGCTGCAAGATGATCC 2100
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Db 2041 TGAAGAGCTCAACAAATTCAGTACGCTGTGTTGGCTGCTGCTGCAAGATGATCC 2100
QY 2101 CTGCTTGTGCGCTTGTCTATGATGATGATGATGATGATGATGATGATGATGATGATG 2160
|||||
Db 2101 CTGCTTGTGCGCTTGTCTATGATGATGATGATGATGATGATGATGATGATGATGATG 2160
QY 2161 AGCTACCCCGATGGAG 2220
|||||
Db 2161 AGCTACCCCGATGGAG 2220
QY 2221 GGGCGGTCAAAACCTTCAAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2280
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Db 2221 GGGCGGTCAAAACCTTCAAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2280
QY 2281 TTGCAATCCCAAGCTCTACACCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2340
|||||
Db 2281 TTGCAATCCCAAGCTCTACACCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2340
QY 2341 TGCAGAGCTACAGGCTTGTGAGCTCAGCAAAAGGCTTCAAGAGAGAGAGAGAGAGAG 2400
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Db 2341 TGCAGAGCTACAGGCTTGTGAGCTCAGCAAAAGGCTTCAAGAGAGAGAGAGAGAGAG 2400
QY 2401 TGTTCACCATGAGGCTCAATCTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2460
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Db 2401 TGTTCACCATGAGGCTCAATCTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2460
QY 2461 CCATCCTGTGAGAGCTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2520
|||||
Db 2461 CCATCCTGTGAGAGCTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2520
QY 2521 ACCTTGGGCTTGGCCAGGCAACAGCGGCTGATCCAAAGGCTGAGAGAGAGAGAGAG 2580
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Db 2521 ACCTTGGGCTTGGCCAGGCAACAGCGGCTGATCCAAAGGCTGAGAGAGAGAGAGAG 2580
QY 2581 TGGATGAGGCTTGGCCAGGCAACAGCGGCTGATCCAAAGGCTGAGAGAGAGAGAGAG 2640
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Db 2581 TGGATGAGGCTTGGCCAGGCAACAGCGGCTGATCCAAAGGCTGAGAGAGAGAGAGAG 2640
QY 2641 ACTGGGTGAGTGAAG 2700
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Db 2641 ACTGGGTGAGTGAAG 2700
QY 2701 CGGACATCAACACACCCCAACCCAGCTGCTGCTCAAAAGGCTGAGAGAGAGAGAGAG 2760
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Db 2701 CGGACATCAACACACCCCAACCCAGCTGCTGCTCAAAAGGCTGAGAGAGAGAGAGAG 2760
QY 2761 AAGAGCTGAG 2820
|||||
Db 2761 AAGAGCTGAG 2820
QY 2821 AGTTTCAACACAG 2880
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Db 2821 AGTTTCAACACAG 2880
QY 2881 CTGCTGCTTCTGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2940
|||||
Db 2881 CTGCTGCTTCTGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2940
QY 2941 CTCTCCGGATTCACAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3000
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Db 2941 CTTCCGGGATGACACGCGCCAGAGATCCACTGACTGTGGCCGCGGTACCTACACCA 3000
 QY 3001 CCGGAGATGCGGAGGTCCTCCCTGACACAGGTGTCTGACGACATGCTCAACAGCTTGA 3060
 Db 3001 CCGGAGATGCGGAGGTCCTCCCTGACACAGGTGTCTGACGACATGCTCAACAGCTTGA 3060
 QY 3061 AGCCCAAGACCCAGTGCCTCTTTGTGCGGAGATGCCAGGCTCTTCAACCTCCCGGAG 3120
 Db 3061 AGCCCAAGACCCAGTGCCTCTTTGTGCGGAGATGCCAGGCTCTTCAACCTCCCGGAG 3120
 QY 3121 ATCCCTCCATCTCTTGCATCTCATGCGGCTGGGACAGAGCATGCTGCTTCCGACGTT 3180
 Db 3121 ATCCCTCCATCTCTTGCATCTCATGCGGCTGGGACAGAGCATGCTGCTTCCGACGTT 3180
 QY 3181 TCTGGAGCAGAGGCTCCATGCTCCAGCAGCAAGGAGTGGGGAGGAGCCGACATGACT 3240
 Db 3181 TCTGGAGCAGAGGCTCCATGCTCCAGCAGCAAGGAGTGGGGAGGAGCCGACATGACT 3240
 QY 3241 TGGTGTGGGTGCGCCGCGCCAGATGAGGACACATCTACGAGGAGATGCTGAGAGA 3300
 Db 3241 TGGTGTGGGTGCGCCGCGCCAGATGAGGACACATCTACGAGGAGATGCTGAGAGA 3300
 QY 3301 TGGCCAGAGAGGAGGCTGCTGATGCGGTGACACAGCTTATCCGCTGCTGGCAAGC 3360
 Db 3301 TGGCCAGAGAGGAGGCTGCTGATGCGGTGACACAGCTTATCCGCTGCTGGCAAGC 3360
 QY 3361 CCAAGGTCTATGTTAGAGACATCTGCGGACAGCTGCGGAGGAGTGGCTCCGTTGCG 3420
 Db 3361 CCAAGGTCTATGTTAGAGACATCTGCGGAGGAGTGGCTCCGTTGCGTTGCG 3420
 QY 3421 TCCAAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3480
 Db 3421 TCCAAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3480
 QY 3481 CCAACACCTCTGAAGAGCTGTGCTGCGCAAGCTGAATTAATGAGAGAGAGTGCAGG 3540
 Db 3481 CCAACACCTCTGAAGAGCTGTGCTGCGCAAGCTGAATTAATGAGAGAGAGTGCAGG 3540
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 QY 3601 TTCTTCAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3660
 Db 3601 TTCTTCAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3660
 QY 3661 CGCTCTGAGGAGGCTACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3720
 Db 3661 CGCTCTGAGGAGGCTACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3720
 QY 3721 GCTCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3780
 Db 3721 GCTCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3780
 QY 3781 CTCAAGTCTTATCTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3840
 Db 3781 CTCAAGTCTTATCTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3840
 QY 3841 GTAGACCTCTGAGTGTGAGGAGGCTCTCTCAAACTGGGAGGCTCTGCTGCTTGA 3900
 Db 3841 GTAGACCTCTGAGTGTGAGGAGGCTCTCTCTCAAACTGGGAGGCTCTGCTGCTTGA 3900
 QY 3901 AGACAAATCTTAATGCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3960
 Db 3901 AGACAAATCTTAATGCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3960
 QY 3961 GCACCACTTCAAGTACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 4020
 Db 3961 GCACCACTTCAAGTACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 4020
 QY 4021 TGTACAGTCTTATGCTCTGTATTTAAAAAACAACCCAGTGTGTTCCCATGAGCC 4080
 Db 4021 TGTACAGTCTTATGCTCTGTATTTAAAAAACAACCCAGTGTGTTCCCATGAGCC 4080

Db 4021 TGTACAGTCTTATGCTCTGTATTTAAAAAACAACCCAGTGTGTTCCCATGAGCC 4080
 QY 4081 ACTTGGGCTCTCCCTGTATGATATCTTGATGGAGATTTATACATGATTCATTTACTT 4140
 Db 4081 ACTTGGGCTCTCCCTGTATGATATCTTGATGGAGATTTATACATGATTCATTTACTT 4140
 QY 4141 TAATC 4145
 Db 4141 TAATC 4145
 RESULT 9
 US-09-490-208-3
 ? Sequence 3, Application US/09490208A
 ? GENERAL INFORMATION:
 ? APPLICANT: C. Frank Bennett
 ? APPLICANT: Nicholas M. Dean
 ? APPLICANT: Lex M. Cowsett
 ? TITLE OF INVENTION: ANTISENSE MODULATION OF INDUCIBLE NITRIC OXIDE SYNTHASE E
 ? CURRENT APPLICATION NUMBER: RFS-0066
 ? CURRENT FILING DATE: US/09/490, 208A
 ? FILE REFERENCE:
 ? NUMBER OF SEQ ID NOS: 182
 ? SEQ ID NO 3
 ? LENGTH: 4145
 ? TYPE: DNA
 ? ORGANISM: Homo sapiens
 ? FEATURE:
 ? NAME/KEY: CDS
 ? LOCATION: (207)...(3668)
 US-09-490-208-3
 Query Match 100.0%; Score 4145; DB 18; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CTGCTTTAAATCTCTGCGCACCTTTGATGAGGAGGAGTGGGAGTCTTACAGAGTCCG 60
 Db 1 CTGCTTTAAATCTCTGCGCACCTTTGATGAGGAGGAGTGGGAGTCTTACAGAGTCCG 60
 QY 61 AATTTTCAAGGACAGGCTCTTCTGTTGACTGTCTTACCCCGGAGGAGGAGTGC 120
 Db 61 AATTTTCAAGGACAGGCTCTTCTGTTGACTGTCTTACCCCGGAGGAGGAGGAGTGC 120
 QY 121 AGCAGCTCAAGCCCGCCAGAGTGAAGAACATCTGAGCTCAATTCAGATTAAGTACATA 180
 Db 121 AGCAGCTCAAGCCCGCCAGAGTGAAGAACATCTGAGCTCAATTCAGATTAAGTACATA 180
 QY 181 GTGACTGCTTTGTAAAGCATAGAGAGGCTGTCTTGAATTTCTGTTCAAGACCA 240
 Db 181 GTGACTGCTTTGTAAAGCATAGAGAGGCTGTCTTGAATTTCTGTTCAAGACCA 240
 QY 241 AATTCACAGATGATCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 300
 Db 241 AATTCACAGATGATCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 300
 QY 301 CCTGTGCCACTCTCAGTCAAGTACAGAGGAGTCACTTCAATTCAGATTAAGTACATA 360
 Db 301 CCTGTGCCACTCTCAGTCAAGTACAGAGGAGTCACTTCAATTCAGATTAAGTACATA 360
 QY 361 AGCAGATGAGTCCCGCCAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 420
 Db 361 AGCAGATGAGTCCCGCCAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 420
 QY 421 TCAAGTGTGATGCAAGCCCATTTGCTCTCCCAAGGAGTGAAGTCAAAAACTGGGCA 480
 Db 421 TCAAGTGTGATGCAAGCCCATTTGCTCTCCCAAGGAGTGAAGTCAAAAACTGGGCA 480
 QY 481 GCGGATGATCTTTCAAGACACTTCAACATTAAGGAGGAGGAGGAGGAGGAGGAGGAGG 540
 Db 481 GCGGATGATCTTTCAAGACACTTCAACATTAAGGAGGAGGAGGAGGAGGAGGAGGAGG 540
 QY 541 CCAATCTTGCTGGGCTCATTTATGACTCCCAAAAGTTTGACGAGAGGAGGAGGAGGAGCA 600

		600			
Db	541 CCAATCTTGGCTGGGTCATTTATGACTCCCAAAAGTTTACAGAGACCCAGGGACA	600			
Qy	601 AGCCACCCCTCCAGATAGGCTTCTACTCAAGCTATGAAATTTGTCAACCAATATTACG	660			
Db	601 AGCCACCCCTCCAGATAGGCTTCTACTCAAGCTATGAAATTTGTCAACCAATATTACG	660			
Qy	661 GCTCCTTCAAGAGGCAAAATAGAGAAATCTGGCCAGGCTGAGCGGTAAACAAAG	720			
Db	661 GCTCCTTCAAGAGGCAAAATAGAGAAATCTGGCCAGGCTGAGCGGTAAACAAAG	720			
Qy	721 AATAGAAACACAGAGAACTTCCAACTGAGGAGGATGAGCTATCTTCCGACCAAGC	780			
Db	721 AATAGAAACACAGAGAACTTCCAACTGAGGAGGATGAGCTATCTTCCGACCAAGC	780			
Qy	781 AGGCTGGGCAATGCCCCAGCTCATTTGGAGGATCCAGTGTCCAACTGCAGGTCT	840			
Db	781 AGGCTGGGCAATGCCCCAGCTCATTTGGAGGATCCAGTGTCCAACTGCAGGTCT	840			
Qy	841 TCGATGCCGCGAGCTGTTCCACTGCCCGGAAATGTTTGAACACATCTGCACACGTCG	900			
Db	841 TCGATGCCGCGAGCTGTTCCACTGCCCGGAAATGTTTGAACACATCTGCACACGTCG	900			
Qy	901 GTTACTCCACCAACATGAGCAACATCAGGTGCGCCATCCGCTGTTCCCGCAGGAGTG	960			
Db	901 GTTACTCCACCAACATGAGCAACATCAGGTGCGCCATCCGCTGTTCCCGCAGGAGTG	960			
Qy	961 ATGGCAGACACGACTTCCGGGTGTGGAATGCTCAGCTCATCCGCTATGCTGTGCATACGA	1020			
Db	961 ATGGCAGACACGACTTCCGGGTGTGGAATGCTCAGCTCATCCGCTATGCTGTGCATACGA	1020			
Qy	1021 TGGCAGATGGCAGATCAGAGGGGACCCTGGCCAGCTGGAATTCATCTCAGCTGTGATG	1080			
Db	1021 TGGCAGATGGCAGATCAGAGGGGACCCTGGCCAGCTGGAATTCATCTCAGCTGTGATG	1080			
Qy	1081 ACCTGGGCTGGAGGCCCAATAGCGCGCTTCGATGTGTCCTCCCTGTCAGAGCCA	1140			
Db	1081 ACCTGGGCTGGAGGCCCAATAGCGCGCTTCGATGTGTCCTCCCTGTCAGAGCCA	1140			
Qy	1141 ATGGCCGTGACCCCTGAGCTTCTGAAATCCCACTGACTTGTGTGAGAGTGGCCATGG	1200			
Db	1141 ATGGCCGTGACCCCTGAGCTTCTGAAATCCCACTGACTTGTGTGAGAGTGGCCATGG	1200			
Qy	1201 AACTTCCCAATAGAGAGTGTGAGAGTGGGAGCTAAAGTGTAAAGTGGTGGCCATGG	1260			
Db	1201 AACTTCCCAATAGAGAGTGTGAGAGTGGGAGCTAAAGTGTAAAGTGGTGGCCATGG	1260			
Qy	1261 TGGCCAACTGCTGCTTGAAGTGGGCGGCTGAGTTCCAGGGTGCCTTCAATGGCT	1320			
Db	1261 TGGCCAACTGCTGCTTGAAGTGGGCGGCTGAGTTCCAGGGTGCCTTCAATGGCT	1320			
Qy	1321 GGTACATGGGACAGAGATCGGAGTCCGGGACTTCTGTGACGTCCAGCGCTACACATCC	1380			
Db	1321 GGTACATGGGACAGAGATCGGAGTCCGGGACTTCTGTGACGTCCAGCGCTACACATCC	1380			
Qy	1381 TGGAGGAAGTGGGACAGAGATGGGCTGAGAAAGCAGCAAGCTGGCTCGCTGGAAG	1440			
Db	1381 TGGAGGAAGTGGGACAGAGATGGGCTGAGAAAGCAGCAAGCTGGCTCGCTGGAAG	1440			
Qy	1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGTATCATAGTTTTCAGAGCAGATATGA	1500			
Db	1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGTATCATAGTTTTCAGAGCAGATATGA	1500			
Qy	1501 CCATCATGAGACACACCTCGGCTGAGAAATCTTCATGAAATACATGCAAGATGAATACC	1560			
Db	1501 CCATCATGAGACACACCTCGGCTGAGAAATCTTCATGAAATACATGCAAGATGAATACC	1560			
Qy	1561 GATCCGTTGGGGGCTGCCCGGACAGATGATTTGGCTGGTCCCTCCCATGTCTGGAGCA	1620			
Db	1561 GATCCGTTGGGGGCTGCCCGGACAGATGATTTGGCTGGTCCCTCCCATGTCTGGAGCA	1620			
Qy	1621 TCACCCCGGTGTTTACACAGAGATGCTGAACTAGTCTCTCCCTTCTCACTATATC	1680			
Db	1621 TCACCCCGGTGTTTACACAGAGATGCTGAACTAGTCTCTCTCCCTTCTCACTATATC	1680			
Qy	1681 AGGTAGAGGCTGGAAGAACCCATGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAG	1740			
Db	1681 AGGTAGAGGCTGGAAGAACCCATGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	1740			
Qy	1741 AGATTCATGGAAGTCTGTGGAAGCTGTGCTCTTGTGCTGTATGCTGATGCGCAGA	1800			
Db	1741 AGATTCATGGAAGTCTGTGGAAGCTGTGCTCTTGTGCTGTATGCTGATGCGCAGA	1800			
Qy	1801 CAATGGCTGCCAGTGTGAGAGTCAACCATCTCTTGTGAGAGAGAGAGAGAGAGAG	1860			
Db	1801 CAATGGCTGCCAGTGTGAGAGTCAACCATCTCTTGTGAGAGAGAGAGAGAGAGAG	1860			
Qy	1861 CGCTGGCTGGAGACCTGGGGCCCTTATTCAGCTGTGCTTCAACCCCAAGGTGTGCA	1920			
Db	1861 CGCTGGCTGGAGACCTGGGGCCCTTATTCAGCTGTGCTTCAACCCCAAGGTGTGCA	1920			
Qy	1921 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	1980			
Db	1921 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	1980			
Qy	1981 CTTTGGCATGAGAGACTGCTGGCAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2040			
Db	1981 CTTTGGCATGAGAGACTGCTGGCAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2040			
Qy	2041 TGAAGAGCTCAACACAAATTCAGTACGCTGTGTTGGCTGGCTGCCAGATGAC	2100			
Db	2041 TGAAGAGCTCAACACAAATTCAGTACGCTGTGTTGGCTGGCTGCCAGATGAC	2100			
Qy	2101 CTGCGTTCGCGCTTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG	2160			
Db	2101 CTGCGTTCGCGCTTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG	2160			
Qy	2161 AGCTACCCCAATGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2220			
Db	2161 AGCTACCCCAATGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2220			
Qy	2221 GGGCGGTGCAACCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2280			
Db	2221 GGGCGGTGCAACCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2280			
Qy	2281 TTACAGTCCCAAGCTCTACACCTCCAAATGATGATGATGATGATGATGATGATGATG	2340			
Db	2281 TTACAGTCCCAAGCTCTACACCTCCAAATGATGATGATGATGATGATGATGATGATG	2340			
Qy	2341 TCGAGAGTCAAGAGCTTGTGAGCTCAGCAAGAGAGAGAGAGAGAGAGAGAGAGAG	2400			
Db	2341 TCGAGAGTCAAGAGCTTGTGAGCTCAGCAAGAGAGAGAGAGAGAGAGAGAGAGAG	2400			
Qy	2401 TGTTCACCATGAGGCTCAATCTCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2460			
Db	2401 TGTTCACCATGAGGCTCAATCTCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2460			
Qy	2461 CCATCTGTGAGAGCTCTCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2520			
Db	2461 CCATCTGTGAGAGCTCTCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2520			
Qy	2521 ACCTTGGGTTTGGCCAGGCAACAGCGGCTGTGTCAGAGCATCTGAGCGAGTGG	2580			
Db	2521 ACCTTGGGTTTGGCCAGGCAACAGCGGCTGTGTCAGAGCATCTGAGCGAGTGG	2580			
Qy	2581 TGGATGGCCCAACAG	2640			
Db	2581 TGGATGGCCCAACAG	2640			
Qy	2641 ACTGGGCTGTGAG	2700			
Db	2641 ACTGGGCTGTGAG	2700			
Qy	2701 CGGACATCACACACCCCAACCCAGCTGCTCTCAAAAAGTGGGCGGAGTGGCCACAG	2760			
Db	2701 CGGACATCACACACCCCAACCCAGCTGCTCTCAAAAAGTGGGCGGAGTGGCCACAG	2760			

Db 2521 ACCCTGGGGTTTGGCCAGGCAACAGCGGCCCTGGTCCAAAGCATCTCGAGGAGTGG 2580
QY 2581 TGGATGGGCCCCACACCCACAGAGTGGCGCTGGAGAGCTGATAGAGTGGCACT 2640
Db 2581 TGGATGGGCCCCACACCCACAGAGTGGCGCTGGAGAGCTGATAGAGTGGCACT 2640
QY 2641 ACTGGGTGAGTACAGAGAGGTGGCCCCCTGGTCACTAGAGAGCCCTCACTACTCC 2700
Db 2641 ACTGGGTGAGTACAGAGAGGTGGCCCCCTGGTCACTAGAGAGCCCTCACTACTCC 2700
QY 2701 GGGAGATACCAACACCCCAACCCAGCTGCTCTCAAAAGCTGGCCAGGTGGCCACAG 2760
Db 2701 GGGAGATACCAACACCCCAACCCAGCTGCTCTCAAAAGCTGGCCAGGTGGCCACAG 2760
QY 2761 AAGAGCTGAGAGAGAGAGGTGGAGGCTGGAGCCCTGGACAGCCCTCAAGAGACAGAGGA 2820
Db 2761 AAGAGCTGAGAGAGAGAGGTGGAGGCTGGAGGCTGGAGCCCTCAAGAGACAGAGGA 2820
QY 2821 AGTTACCAACAGACCCCACTCTGGAGTGTAGAGAGTTCCTCCGTCCTGGGGTGT 2880
Db 2821 AGTTACCAACAGACCCCACTCTGGAGTGTAGAGAGTTCCTCCGTCCTGGGGTGT 2880
QY 2881 CTGCTGGCTTCTGCTTCCAGGTCCTCCATTCGAGGCCAGGTCTACTCTCACTAGCT 2940
Db 2881 CTGCTGGCTTCTGCTTCCAGGTCCTCCATTCGAGGCCAGGTCTACTCTCACTAGCT 2940
QY 2941 CTTCCCGGGATACAGCGCCCAAGAGATCCACTGAGTGGCGGTGGTCACTACACACA 3000
Db 2941 CTTCCCGGGATACAGCGCCCAAGAGATCCACTGAGTGGCGGTGGTCACTACACACA 3000
QY 3001 CCGAGATAGGCGAGGTCCTCTGACACAGGTCTCTGACACATGCTCAAGACCTGA 3060
Db 3001 CCGAGATAGGCGAGGTCCTCTGACACAGGTCTCTGACACATGCTCAAGACCTGA 3060
QY 3061 AGCCCAAGAGCCAGTCCCTGCTTGTGGGAATGCGAGGCGCTCCACTCCCGAGG 3120
Db 3061 AGCCCAAGAGCCAGTCCCTGCTTGTGGGAATGCGAGGCGCTCCACTCCCGAGG 3120
QY 3121 ATCCCTCCCATCTTGCATCTCTATCGGGCTGGACAGSCATGTCCTTCGCGAGTT 3180
Db 3121 ATCCCTCCCATCTTGCATCTCTATCGGGCTGGACAGSCATGTCCTTCGCGAGTT 3180
QY 3181 TCTGGCAGCAAGGCTCCATGAGTCCAGCAAGAGAGTGGCGGAGGCGCATACCT 3240
Db 3181 TCTGGCAGCAAGGCTCCATGAGTCCAGCAAGAGAGTGGCGGAGGCGCATACCT 3240
QY 3241 TGGTGTGGGTGGCGCGCCAGATGAGAGACCATCTACAGAGAGATGCTGAGA 3300
Db 3241 TGGTGTGGGTGGCGCGCCAGATGAGAGACCATCTACAGAGAGATGCTGAGA 3300
QY 3301 TGGCCCAAGAGGGGTGCTGCTGATGGGTGACACAGCTTATCCGCTGGCAAGC 3360
Db 3301 TGGCCCAAGAGGGGTGCTGCTGATGGGTGACACAGCTTATCCGCTGGCAAGC 3360
QY 3361 CCAAGGTCTATGTTCAAGAGATCTGCGGAGAGCTGGCGAGCGAGTGCCTGGTGC 3420
Db 3361 CCAAGGTCTATGTTCAAGAGATCTGCGGAGAGCTGGCGAGCGAGTGCCTGGTGC 3420
QY 3421 TCCACAGAGAGCGGCGACCTCTATGTTGGGGATGTGGCGATGGCCGAGAGTGG 3480
Db 3421 TCCACAGAGAGCGGCGACCTCTATGTTGGGGATGTGGCGATGGCCGAGAGTGG 3480
QY 3481 CCACAGCCCGAGAGAGTGGGTGGCGCAAGCTGAATGATGAGAGAGCGAGTGGAGG 3540
Db 3481 CCACAGCCCGAGAGAGTGGGTGGCGCAAGCTGAATGATGAGAGAGCGAGTGGAGG 3540
QY 3541 ACTATTCTTCTTCAAGTCAAGAGCGATATACAGATATCTCGGTGCTGAT 3600
Db 3541 ACTATTCTTCTTCAAGTCAAGAGCGATATACAGATATCTCGGTGCTGAT 3600
QY 3601 TTCTTACAGAGCGAGAGAGAGGTGGGTGCGAGCCGAGAGCTGAGATGTGAG 3660
Db 3601 TTCTTACAGAGCGAGAGAGAGGTGGGTGCGAGCCGAGAGCTGAGATGTGAG 3660

Db 3601 TTCTTACAGAGCGAGAGAGAGGTGGGTGCGAGCCGAGAGCTGAGATGTGAG 3660
QY 3661 CGCTCTGAGGCGCTTACAGAGAGGTTAAAGCTCCCGGACAGAACTTAAGATGAGCA 3720
Db 3661 CGCTCTGAGGCGCTTACAGAGAGGTTAAAGCTCCCGGACAGAACTTAAGATGAGCA 3720
QY 3721 GCTGTGATTTATGAGAGTACAGGCGCTGGGAGATGGAGAAATGATATCCCGAC 3780
Db 3721 GCTGTGATTTATGAGAGTACAGGCGCTGGGAGATGGAGAAATGATATCCCGAC 3780
QY 3781 CTCAGTCTATTCTTCAAGAGTGGTCCCATCAAGCCCTTACTTGAACCTCTAACAA 3840
Db 3781 CTCAGTCTATTCTTCAAGAGTGGTCCCATCAAGCCCTTACTTGAACCTCTAACAA 3840
QY 3841 GTAGACCCCTGATGATGAGAGCCCTCTCTCAAACTGGGGCGCTCCCTGGCTGG 3900
Db 3841 GTAGACCCCTGATGATGAGAGCCCTCTCTCAAACTGGGGCGCTCCCTGGCTGG 3900
QY 3901 AGACAAATCTTAAATGCGAGGCGTGGGAGTGGGTAAGATGAGACTGCTGAGT 3960
Db 3901 AGACAAATCTTAAATGCGAGGCGTGGGAGTGGGTAAGATGAGACTGCTGAGT 3960
QY 3961 GCACACTTCAAGTACACAGAGAGTGTATCGACACCTGTATTAATGACTGCTTG 4020
Db 3961 GCACACTTCAAGTACACAGAGAGTGTATCGACACCTGTATTAATGACTGCTTG 4020
QY 4021 TGTACAGTATTATGAGTCTGATTTAAAAACTTACACCCAGTCTGCTCCATG 4080
Db 4021 TGTACAGTATTATGAGTCTGATTTAAAAACTTACACCCAGTCTGCTCCATG 4080
QY 4081 ACTTGGCTTCTCCCTGATGATTTCTGATGAGATTTTACATGATTTGATTTACTT 4140
Db 4081 ACTTGGCTTCTCCCTGATGATTTCTGATGAGATTTTACATGATTTGATTTACTT 4140
QY 4141 TAATC 4145
Db 4141 TAATC 4145

RESULT 11
US-09-543-679A-2507
Sequence 2507, Application US/09543679A
GENERAL INFORMATION:
APPLICANT: NYCE, Jonathan W.
TITLE OF INVENTION: LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE,
OF AIRWAY DISORDERS ASSOCIATED WITH
COMPOSITIONS, KIT & METHOD FOR TREATMENT
OF AIRWAY DISORDERS ASSOCIATED WITH
BRONCHOCONSTRICTION, LUNG INFLAMMATION,
NUMBER OF SEQUENCES: 3111
CORRESPONDENCE ADDRESS:
ADDRESSEE: EPIGENESIS PHARMACEUTICALS, INC.
STREET: 7 Clarke Drive
City: Cranbury
STATE: NJ
COUNTRY: USA
ZIP: 08512
COMPUTER READABLE FORM:
MEDIUM TYPE: CD-R
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: N/A
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/543,679A
FILING DATE: 13-Apr-2000
CLASSIFICATION: UNKNOWN
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/127,938
FILING DATE: 1998-08-03
ATTORNEY/AGENT INFORMATION:
NAME: Amzel, Viviana
REGISTRATION NUMBER: 30,930
REFERENCE/DOCKET NUMBER: EPI-0067191b
TELECOMMUNICATION INFORMATION:

TELEPHONE: 609-409-3035
TELEFAX: 413-254-9245

INFORMATION FOR SEQ ID NO: 2507:
SEQUENCE CHARACTERISTICS:

LENGTH: 4145 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

SEQUENCE DESCRIPTION: SEQ ID NO: 2507:

US-09-543-679A-2507

Query Match

Best Local Similarity 100.0%; Score 4145; DB 21; Length 4145;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 GTGCTTAAATCTCGGCGACCTTGTATGAGGGAGTGGGAGTCTAGACAGTCCG 60
1 CTGCTTAAATCTCGGCGACCTTGTATGAGGGAGTGGGAGTCTAGACAGTCCG 60
61 AAGTTCTCAAGGACAGTCTCTCTGTTGACTGTCTTACCCTGGGAGGACATGC 120
61 AAGTTCTCAAGGACAGTCTCTCTGTTGACTGTCTTACCCTGGGAGGACATGC 120
121 AGGCACTGCAAGCCCAAGTGAAGAATCTGAGCTCAATCCAGTAAGTGAATTA 180
121 AGGCACTGCAAGCCCAAGTGAAGAATCTGAGCTCAATCCAGTAAGTGAATTA 180
181 GTGACCTGCTTTGTAAGGACATAGAGTGGCTGTCTTGAATTTCTTCAAGACA 240
181 GTGACCTGCTTTGTAAGGACATAGAGTGGCTGTCTTGAATTTCTTCAAGACA 240
241 AATTCACACAGTGTGCAATGATGAGGAAAAAGACATCAACACATGTGGAAGAGCC 300
241 AATTCACACAGTGTGCAATGATGAGGAAAAAGACATCAACACATGTGGAAGAGCC 300
301 CCTGTGCACCTCTCAGTCCAGTACAGAGATGACCTTCACTTCAACACCTGAGAACG 360
301 CCTGTGCACCTCTCAGTCCAGTACAGAGATGACCTTCACTTCAACACCTGAGAACG 360
361 AGCAGATGAGTCCCGCAGCCCTGTGAGAGCGGAAAGATCTCCGAGATCTCTCG 420
361 AGCAGATGAGTCCCGCAGCCCTGTGAGAGCGGAAAGATCTCCGAGATCTCTCG 420
421 TCAAGCTGATGCAACCCCATTTGCTCCCGAGGATGAGATCAAAAATCTGGGACA 480
421 TCAAGCTGATGCAACCCCATTTGCTCCCGAGGATGAGATCAAAAATCTGGGACA 480
481 GCGGATGATGCTTCCAGAGACACTTCCATTAAGGCAAGGATTTAACTTGAGGT 540
481 GCGGATGATGCTTCCAGAGACACTTCCATTAAGGCAAGGATTTAACTTGAGGT 540
541 CCAATCTTGGCTGGGCTCATTTAGTCTCCCAAAAGTTTGAACAGGAGCCAGGACA 600
541 CCAATCTTGGCTGGGCTCATTTAGTCTCCCAAAAGTTTGAACAGGAGCCAGGACA 600
601 AGGCTACCCCTCCAGATGAGTCTTACCTCAAGCTATCGAATTTGTCAACCAATATACG 660
601 AGGCTACCCCTCCAGATGAGTCTTACCTCAAGCTATCGAATTTGTCAACCAATATACG 660
661 GCTCTTCAAGAGGCAAAATAGAGAACTCTGCGCAGGAGTGAAGCGGTAAACAAGG 720
661 GCTCTTCAAGAGGCAAAATAGAGAACTCTGCGCAGGAGTGAAGCGGTAAACAAGG 720
721 AGATGAAGAAACAAGAACTTACCACTGAGGAGATGAGTATCTTGGCCCAAGC 780
721 AGATGAAGAAACAAGAACTTACCACTGAGGAGATGAGTATCTTGGCCCAAGC 780
781 AGGCTGCGCAATGCCCAAGTGTGATGAGGAGATCAATGATGATGATGATGATGAT 840
781 AGGCTGCGCAATGCCCAAGTGTGATGAGGAGATCAATGATGATGATGATGATGAT 840
841 TCGATGCCGAGAGTGTTCACACTGCGCGGGAATTTTGAACACATCTGCAGACAGTGC 900

841 TCGATGCCGAGAGTGTTCACACTGCGCGGGAATTTTGAACACATCTGCAGACAGTGC 900
901 GTTACTCCACCAACATGCAACATCAGTGGCCATACCGTGTTCCTCCACGAGAG 960
901 GTTACTCCACCAACATGCAACATCAGTGGCCATACCGTGTTCCTCCACGAGAG 960
961 ATGCAAGCAAGTCTCCGGGTGAGATGCTACAGTCAATCGGCTATGCGGTACCA 1020
961 ATGCAAGCAAGTCTCCGGGTGAGATGCTACAGTCAATCGGCTATGCGGTACCA 1020
1021 TGCCAGATGCGAGATCAGAGGAGGAGCCCTGCAACGTGAATTCATCTACCTGATCG 1080
1021 TGCCAGATGCGAGATCAGAGGAGGAGCCCTGCAACGTGAATTCATCTACCTGATCG 1080
1081 ACCTGGCTGGAAGCCCAAGTACGCGCTTCGATGATGATGATGATGATGATGATG 1140
1081 ACCTGGCTGGAAGCCCAAGTACGCGCTTCGATGATGATGATGATGATGATGATG 1140
1141 ATGGCCGAGACCTGAGTCTTGAATTCACCTGACCTTGTGAGTGGCCATGG 1200
1141 ATGGCCGAGACCTGAGTCTTGAATTCACCTGACCTTGTGAGTGGCCATGG 1200
1201 AACATCCCAATACGAGTGTTCGGAATCGAGCTAAAGTGTACGCGCTGCTGAC 1260
1201 AACATCCCAATACGAGTGTTCGGAATCGAGCTAAAGTGTACGCGCTGCTGAC 1260
1261 TGCCCAACATGCTGTTAGTGTGGGCGCTTGAAGTCCAGAGGCTGCTTCAATGCT 1320
1261 TGCCCAACATGCTGTTAGTGTGGGCGCTTGAAGTCCAGAGGCTGCTTCAATGCT 1320
1321 GGTACATGCGGACAGAGATCGAGTCCGGAATCTGTGAGCTCAGCGCTACAAATCC 1380
1321 GGTACATGCGGACAGAGATCGAGTCCGGAATCTGTGAGCTCAGCGCTACAAATCC 1380
1381 TGGAGAAAGTGGGACAGAGATGAGGCTTGAAGAAAGCAACCTGCTCGCTGGAAG 1440
1381 TGGAGAAAGTGGGACAGAGATGAGGCTTGAAGAAAGCAACCTGCTCGCTGGAAG 1440
1441 ACCAGGCTGCTGATGATCAACATTTGCTGATGATGATGATGATGATGATGATG 1500
1441 ACCAGGCTGCTGATGATCAACATTTGCTGATGATGATGATGATGATGATGATG 1500
1501 CCATCATGAGACCAACCTGCTGAGATTCCTTATGATGATGATGATGATGATGATG 1560
1501 CCATCATGAGACCAACCTGCTGAGATTCCTTATGATGATGATGATGATGATGATG 1560
1561 GGTCCGCTGGGCTGCGCGGAGACTGATGATGATGATGATGATGATGATGATG 1620
1561 GGTCCGCTGGGCTGCGCGGAGACTGATGATGATGATGATGATGATGATGATG 1620
1621 TCAAGCTGATGCAACCCCATTTGCTCCCGAGGATGAGATCAAAAATCTGGGACA 1680
1621 TCAAGCTGATGCAACCCCATTTGCTCCCGAGGATGAGATCAAAAATCTGGGACA 1680
1681 AGGTAGAGGCTGGAAGAACCTATGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
1681 AGGTAGAGGCTGGAAGAACCTATGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
1741 AGATTCATTTGAAGCTTGTGCAAAAGCTGCTGCTTTCCTGATGATGATGATGATG 1800
1741 AGATTCATTTGAAGCTTGTGCAAAAGCTGCTGCTTTCCTGATGATGATGATGATG 1800
1801 CAATGCGTCCGAGTCAAGAGTCCATCTCTTGGCAGAGAGAGAGAGAGAGAGAG 1860
1801 CAATGCGTCCGAGTCAAGAGTCCATCTCTTGGCAGAGAGAGAGAGAGAGAGAG 1860
1861 CGCTGGCTGGGACCTGGGCGCTTTATGAGCTGTGCTTCAACCCCAAGGTTGCTGA 1920
1861 CGCTGGCTGGGACCTGGGCGCTTTATGAGCTGTGCTTCAACCCCAAGGTTGCTGA 1920
1921 TGGATAGTACAGAGTGTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980

QY 4141 TAATC 4145
 Db 4141 TAATC 4145

RESULT 12

US-10-182-049-3
 ; Sequence 3, Application US/10182049
 ; GENERAL INFORMATION:
 ; APPLICANT: Isis Pharmaceuticals, Inc.
 ; APPLICANT: C. Frank Bennett
 ; APPLICANT: Nicholas M. Dean
 ; APPLICANT: Lex M. Cowart
 ; TITLE OF INVENTION: ANTISENSE MODULATION OF INDUCIBLE NITRIC OXIDE SYNTHASE EXPRESSION
 ; FILE REFERENCE: RSP-0360
 ; CURRENT APPLICATION NUMBER: US/10/182,049
 ; CURRENT FILING DATE: 2002-07-27
 ; PRIOR APPLICATION NUMBER: 09/490,208
 ; PRIOR FILING DATE: 2000-01-24
 ; NUMBER OF SEQ ID NOS: 182
 ; SEQ ID NO 3
 ; LENGTH: 4145
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 ; FEATURE:
 ; NAME/KEY: CDS
 ; LOCATION: (207)...(3668)
 ; US-10-182-049-3

Query Match 100.0%; Score 4145; DB 41; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTGCGCCACCTTTGATGAGGGAGCTGGGCACTTCTAGACAGTCCG 60
 Db 1 CTGCTTTAAATCTCTGCGCCACCTTTGATGAGGGAGCTGGGCACTTCTAGACAGTCCG 60
 QY 61 AAGTTCACAGGACAGGCTCTCTGCTGCTTGTGCTGCTTACCTCCCGGAGGAGCACTGC 120
 Db 61 AAGTTCACAGGACAGGCTCTCTGCTGCTTGTGCTGCTTACCTCCCGGAGGAGCACTGC 120
 QY 121 AGCCAGTCAAGCCCAAGCAAGTGAAGAACATCTGAGCTCAATCAATCAATCAATCAATCA 180
 Db 121 AGCCAGTCAAGCCCAAGCAAGTGAAGAACATCTGAGCTCAATCAATCAATCAATCAATCA 180
 QY 181 GTGACCTGCTTTGTAAGAGCTTAAGATGAGTGGCTCTCTGGAATTTCTGTCAAGCA 240
 Db 181 GTGACCTGCTTTGTAAGAGCTTAAGATGAGTGGCTCTCTGGAATTTCTGTCAAGCA 240
 QY 241 AATTCACAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 300
 Db 241 AATTCACAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 300
 QY 301 CCGTGGACCTCCAGTCCAGTCAAGCAAGATGATGATGATGATGATGATGATGATGATGATG 360
 Db 301 CCGTGGACCTCCAGTCCAGTCAAGCAAGATGATGATGATGATGATGATGATGATGATGATG 360
 QY 361 AGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 420
 Db 361 AGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 420
 QY 421 TCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 480
 Db 421 TCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 480
 QY 481 GCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 540
 Db 481 GCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 540
 QY 541 CCAATCTGCTGGGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 600
 Db 541 CCAATCTGCTGGGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 600

QY 601 AGCCATCCCTCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 660
 Db 601 AGCCATCCCTCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 660
 QY 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCTGGCCAGGCTGGAAGCGGTAAACAAG 720
 Db 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCTGGCCAGGCTGGAAGCGGTAAACAAG 720
 QY 721 AGATGAAACAAACAGGACCTTACCACTGAGGAGATGATGATGATGATGATGATGATGATG 780
 Db 721 AGATGAAACAAACAGGACCTTACCACTGAGGAGATGATGATGATGATGATGATGATGATG 780
 QY 781 AGGCTGCGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840
 Db 781 AGGCTGCGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840
 QY 841 TCGATGCGCGAGCTGCTTCCATGCTGCGCGGAAATTTTGAACACATCTGACAGACCTGC 900
 Db 841 TCGATGCGCGAGCTGCTTCCATGCTGCGCGGAAATTTTGAACACATCTGACAGACCTGC 900
 QY 901 GTTACTCCACCAACATGAGGCAATCAGTGGGAGGATGATGATGATGATGATGATGATGATG 960
 Db 901 GTTACTCCACCAACATGAGGCAATCAGTGGGAGGATGATGATGATGATGATGATGATGATG 960
 QY 961 ATGCAAGCAGCAGCTTCCGGGTGTGAATGCTCAGCTCATCCGCTATGCTGCTACAGCA 1020
 Db 961 ATGCAAGCAGCAGCTTCCGGGTGTGAATGCTCAGCTCATCCGCTATGCTGCTACAGCA 1020
 QY 1021 TGGCAGATGAGCAGTCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080
 Db 1021 TGGCAGATGAGCAGTCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080
 QY 1081 ACCTGGGCTGGAAGCCCAAGTACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1140
 Db 1081 ACCTGGGCTGGAAGCCCAAGTACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1140
 QY 1141 ATGCGCGTACCTGAGCTCTTCAAAATCCACCTGACCTTGTGCTGAGTGGCCATAGG 1200
 Db 1141 ATGCGCGTACCTGAGCTCTTCAAAATCCACCTGACCTTGTGCTGAGTGGCCATAGG 1200
 QY 1201 AATATCCCAATACAGTGGTTCGGAATCGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1260
 Db 1201 AATATCCCAATACAGTGGTTCGGAATCGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1260
 QY 1261 TGGCCAAACATGCTGCTTGAAGTGGGAGGCTGAGTTCACAGGAGTCCCTTCAATAGCT 1320
 Db 1261 TGGCCAAACATGCTGCTTGAAGTGGGAGGCTGAGTTCACAGGAGTCCCTTCAATAGCT 1320
 QY 1321 GGTACATGAGGACAGAGATGAGTGGGAGTCTTGTGATGCTGACGCTCAGCCTACACATCC 1380
 Db 1321 GGTACATGAGGACAGAGATGAGTGGGAGTCTTGTGATGCTGACGCTCAGCCTACACATCC 1380
 QY 1381 TGGAGAGTGGGACAGAGATGAGTGGGAGTCTTGTGATGCTGACGCTCAGCCTACACATCC 1440
 Db 1381 TGGAGAGTGGGACAGAGATGAGTGGGAGTCTTGTGATGCTGACGCTCAGCCTACACATCC 1440
 QY 1441 ACCAGGCTGCTTGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1500
 Db 1441 ACCAGGCTGCTTGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1500
 QY 1501 CCATCATGAGCAGCAGTGGCTGAGAAATCCCTTCAATGAAATGATGATGATGATGATGATG 1560
 Db 1501 CCATCATGAGCAGCAGTGGCTGAGAAATCCCTTCAATGAAATGATGATGATGATGATGATG 1560
 QY 1561 GGTCCGCTGGGAGGCTGGCCAGAGTGAATTTGGCTGCTCCCATGCTGGGAGCA 1620
 Db 1561 GGTCCGCTGGGAGGCTGGCCAGAGTGAATTTGGCTGCTCCCATGCTGGGAGCA 1620
 QY 1621 TCAACCCCGTGTTCACAGAGAGTGAATGCTGCTGCTCCCTTCTACTACTATC 1680
 Db 1621 TCAACCCCGTGTTCACAGAGAGTGAATGCTGCTGCTCCCTTCTACTACTATC 1680
 QY 1681 AGTGAAGGCTGGAACACCATGCTGTGCGAGAGCAGAAAGGAGAGGAGAGGAGAGGAGAG 1740

Db 1681 AGGATGAGGCTGGAAACCATCTGCGCAGACGAGAAAGCGAGACCCAAAGAGAG 1740
Qy 1741 AGATTCATGAAAGTTGTGCAAAAGCTGCTCTTGGCTGTATGATGATCCGAA 1800
Db 1741 AGATTCATGAAAGTTGTGCAAAAGCTGCTCTTGGCTGTATGATGATCCGAA 1800
Qy 1801 CAATGCGCTCCGAGTACAGTACCATCTCTTGGCAGACAGAGAAATATCAGAG 1860
Db 1801 CAATGCGCTCCGAGTACAGTACCATCTCTTGGCAGACAGAGAAATATCAGAG 1860
Qy 1861 CGCTGCTGAGAGCTGAGGAGCTTATTCAGCTGCTGCTTCAACCCAGGTTGTGCA 1920
Db 1861 CGCTGCTGAGAGCTGAGGAGCTTATTCAGCTGCTGCTTCAACCCAGGTTGTGCA 1920
Qy 1921 TGGATAGTACAGAGCTGAGCTGCTGAGAGAGAGAGCTGCTGTTGGTGGAGCAGTA 1980
Db 1921 TGGATAGTACAGAGCTGAGCTGCTGAGAGAGAGAGCTGCTGTTGGTGGAGCAGTA 1980
Qy 1981 CGTTGGCAATGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2040
Db 1981 CGTTGGCAATGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2040
Qy 2041 TGAAGAGCTCAACAACAATTCAGTACAGTGTGTTGGCTGCTGCTGCTGCTGCTGCT 2100
Db 2041 TGAAGAGCTCAACAACAATTCAGTACAGTGTGTTGGCTGCTGCTGCTGCTGCTGCT 2100
Qy 2101 CTCGGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2160
Db 2101 CTCGGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2160
Qy 2161 ACCTACACCCGATGAGAGAGAGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2220
Db 2161 ACCTACACCCGATGAGAGAGAGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2220
Qy 2221 GGGCCGTGCAAACTTCAAGAGAGAGAGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCT 2280
Db 2221 GGGCCGTGCAAACTTCAAGAGAGAGAGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCT 2280
Qy 2281 TTCAGATCCCAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2340
Db 2281 TTCAGATCCCAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2340
Qy 2341 TGCAGAGCTCAAGCTTGGACCTCAGCAAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2400
Db 2341 TGCAGAGCTCAAGCTTGGACCTCAGCAAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2400
Qy 2401 TGTTCACATGAGAGCTCAAAATCTGCGCAGATCTCAAAAGCTCCGACATCCAGCTG 2460
Db 2401 TGTTCACATGAGAGCTCAAAATCTGCGCAGATCTCAAAAGCTCCGACATCCAGCTG 2460
Qy 2461 CCATCTGCTGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2520
Db 2461 CCATCTGCTGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2520
Qy 2521 ACCTTGGGCTTGGCCAGGAGAGAGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2580
Db 2521 ACCTTGGGCTTGGCCAGGAGAGAGAGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2580
Qy 2581 TGGATGAG 2640
Db 2581 TGGATGAG 2640
Qy 2641 ACTGGGCTGAGTACAG 2700
Db 2641 ACTGGGCTGAGTACAG 2700
Qy 2701 CGGACATACAG 2760
Db 2701 CGGACATACAG 2760
Qy 2761 AAGAGCTGAG 2820
Db 2761 AAGAGCTGAG 2820
Qy 2821 AGTTACCAAG 2880
Db 2821 AGTTACCAAG 2880
Qy 2881 CTGCTGAG 2940
Db 2881 CTGCTGAG 2940
Qy 2941 CCTCCGAGATCAG 3000
Db 2941 CCTCCGAGATCAG 3000
Qy 3001 CCGAGAGATGAG 3060
Db 3001 CCGAGAGATGAG 3060
Qy 3061 AGCCCAAG 3120
Db 3061 AGCCCAAG 3120
Qy 3121 ATCCCTCCATCCTTGCATCCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3180
Db 3121 ATCCCTCCATCCTTGCATCCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3180
Qy 3181 TGTGGAG 3240
Db 3181 TGTGGAG 3240
Qy 3241 TGGTGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 3300
Db 3241 TGGTGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 3300
Qy 3301 TGGCCCAAG 3360
Db 3301 TGGCCCAAG 3360
Qy 3361 CCAAGGCTATGTTCAAG 3420
Db 3361 CCAAGGCTATGTTCAAG 3420
Qy 3421 TCCACAAG 3480
Db 3421 TCCACAAG 3480
Qy 3481 CCCACACCTGAG 3540
Db 3481 CCCACACCTGAG 3540
Qy 3541 ACTATTCTTTCAGCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3600
Db 3541 ACTATTCTTTCAGCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3600
Qy 3601 TTCTTACAG 3660
Db 3601 TTCTTACAG 3660
Qy 3661 CGCTGAG 3720
Db 3661 CGCTGAG 3720
Qy 3721 GCTTGCATTTATCTGAGTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3780
Db 3721 GCTTGCATTTATCTGAGTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3780
Qy 3781 CTCAGGCTTATTTCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3840
Db 3781 CTCAGGCTTATTTCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3840
Qy 3841 GTAGCAGCTGATTTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3900
Db 3841 GTAGCAGCTGATTTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3900

QY 3901 AGACAAAATCTTAATGCGAGGCTGCGAGTGGGTGAAGATGGAACCTGCTGACT 3960
 DB 3901 AGACAAAATCTTAATGCGAGGCTGCGAGTGGGTGAAGATGGAACCTGCTGACT 3960
 QY 3961 GCACACCTTCAAGTACACACAGAGGTCGATGCGACCACTGCTGATTTTACAGCCCTG 4020
 DB 3961 GCACACCTTCAAGTACACACAGAGGTCGATGCGACCACTGCTGATTTTACAGCCCTG 4020
 QY 4021 TGTACAGTTATTTATGCTCTGATTTTAAAAAATACACCCAGTCTGTTCCCGAGCC 4080
 DB 4021 TGTACAGTTATTTATGCTCTGATTTTAAAAAATACACCCAGTCTGTTCCCGAGCC 4080
 QY 4081 ACTGGGTCCTCCCTGATGATTTCTTATGAGATATTTACATGATTTGATTTACTT 4140
 DB 4081 ACTGGGTCCTCCCTGATGATTTCTTATGAGATATTTACATGATTTGATTTACTT 4140
 QY 4141 TTAATC 4145
 DB 4141 TTAATC 4145

RESULT 13

US-10-182-049-10
 ; Sequence 10, Application US/10182049
 ; GENERAL INFORMATION:
 ; APPLICANT: Isis Pharmaceuticals, Inc.
 ; APPLICANT: C. Frank Bennett
 ; APPLICANT: Nicholas M. Dean
 ; APPLICANT: Lex M. Cowser
 ; TITLE OF INVENTION: ANTISENSE MODULATION OF INDUCIBLE NITRIC OXIDE SYNTHASE EXPRESSION
 ; FILE REFERENCE: R1SP-0360
 ; CURRENT APPLICATION NUMBER: US/10/182,049
 ; PRIOR FILING DATE: 2002-07-27
 ; PRIOR APPLICATION NUMBER: 09/490,208
 ; PRIOR FILING DATE: 2000-01-24
 ; NUMBER OF SEQ ID NOS: 182
 ; SEQ ID NO 10
 ; LENGTH: 4145
 ; TYPE: DNA
 ; ORGANISM: Mus musculus
 ; FEATURE:
 ; NAME/KEY: mRNA
 ; LOCATION: (1)...(4110)
 US-10-182-049-10

Query Match

100.0%; Score 4145; DB 41; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTGCGGACCTTGTGATGAGGGAGTGGGCACTTCTAGACAGTCCG 60
 DB 1 CTGCTTTAAATCTGCGGACCTTGTGATGAGGGAGTGGGCACTTCTAGACAGTCCG 60
 QY 61 AATTTTCAGAGCAGAGTCTTCTGTTGACTGCTCTTACCCCGGGGAGGAGTGC 120
 DB 61 AATTTTCAGAGCAGAGTCTTCTGTTGACTGCTCTTACCCCGGGGAGGAGTGC 120
 QY 121 AGCCAGTGCAGAGCCCGACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTGAATAA 180
 DB 121 AGCCAGTGCAGAGCCCGACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTGAATAA 180
 QY 181 GTGACCTGCTTTGTAAGGATGAGATGCTGCTGCTTGAATTTCTGTTCAAGACA 240
 DB 181 GTGACCTGCTTTGTAAGGATGAGATGCTGCTGCTTGAATTTCTGTTCAAGACA 240
 QY 241 AATTCACAGATGATGAATGAGGAAAAAGACATCAACAATGTGGAGAAAGCC 300
 DB 241 AATTCACAGATGATGAATGAGGAAAAAGACATCAACAATGTGGAGAAAGCC 300
 QY 301 CTTGTGACCTGATGAGTGCAGTGCAGTGCAGTGCAGTGCAGTGCAGTGCAGTGCAG 360
 DB 301 CTTGTGACCTGATGAGTGCAGTGCAGTGCAGTGCAGTGCAGTGCAGTGCAGTGCAG 360

QY 361 AGCAGATGATGCTCCGCGAGCCCTTCGTGAGACGGGAGAAAGATCTCCAGATCTG 420
 DB 361 AGCAGATGATGCTCCGCGAGCCCTTCGTGAGACGGGAGAAAGATCTCCAGATCTG 420
 QY 421 TCAAGTGTATGACACCCATGCTCTCCACAGGATGTGAGATCAAAAACCTGGGCA 480
 DB 421 TCAAGTGTATGACACCCATGCTCTCCACAGGATGTGAGATCAAAAACCTGGGCA 480
 QY 481 GCGGATGACTTTTCAAGACACTTACCATTAAGCCAAAGGATTTTAACTGAGGT 540
 DB 481 GCGGATGACTTTTCAAGACACTTACCATTAAGCCAAAGGATTTTAACTGAGGT 540
 QY 541 CCAATTTGCTGGGGTCCATTATGATGCTCCCAAAAGTTTGACAGAGACCCAGGACA 600
 DB 541 CCAATTTGCTGGGGTCCATTATGATGCTCCCAAAAGTTTGACAGAGACCCAGGACA 600
 QY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCAACCAATATTAG 660
 DB 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCAACCAATATTAG 660
 QY 661 GCTCTCTCAAGAGGCAAAAATAGAGACATCTGCGAGGATGAGAGCGGTAAACAAG 720
 DB 661 GCTCTCTCAAGAGGCAAAAATAGAGACATCTGCGAGGATGAGAGCGGTAAACAAG 720
 QY 721 AGATAGAAACACAGAACTACCAACTGACGGGATGAGTCAATCTTCCACCAAGC 780
 DB 721 AGATAGAAACACAGAACTACCAACTGACGGGATGAGTCAATCTTCCACCAAGC 780
 QY 781 AGGCTGGCGCAATGCCCCACGCTGATTTGGAGAGATTCAGTGTCCAACTGAGTCT 840
 DB 781 AGGCTGGCGCAATGCCCCACGCTGATTTGGAGAGATTCAGTGTCCAACTGAGTCT 840
 QY 841 TCGATGCCCCGAGCTGTTCCACGCTCCGCGGAAATGTTGAACACATCTGACAGACGTG 900
 DB 841 TCGATGCCCCGAGCTGTTCCACGCTCCGCGGAAATGTTGAACACATCTGACAGACGTG 900
 QY 901 GTTACTCCACCAACATGAGCAATCAATCAATGAGTGCATCCGTTCCCGAGCGAGTG 960
 DB 901 GTTACTCCACCAACATGAGCAATCAATCAATGAGTGCATCCGTTCCCGAGCGAGTG 960
 QY 961 ATGCAAGCAGAGCTTCCGCGGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGT 1020
 DB 961 ATGCAAGCAGAGCTTCCGCGGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGT 1020
 QY 1021 TGCCAGATGAGCAGATCAGAGGGAGCCCTGCAACGTTGAGTCTCAGTGTGATCG 1080
 DB 1021 TGCCAGATGAGCAGATCAGAGGGAGCCCTGCAACGTTGAGTCTCAGTGTGATCG 1080
 QY 1081 ACCTGGGCTGAGAGCCCAAGTACGCGCTTCGATGTGCTCCCTGCTCGAGGCCA 1140
 DB 1081 ACCTGGGCTGAGAGCCCAAGTACGCGCTTCGATGTGCTCCCTGCTCGAGGCCA 1140
 QY 1141 ATGCGCGTGAACCTGAGTCTTCCGAATCCGACCTGACCTTGTGAGTGTGAGTGTGAGTGT 1200
 DB 1141 ATGCGCGTGAACCTGAGTCTTCCGAATCCGACCTGACCTTGTGAGTGTGAGTGTGAGTGT 1200
 QY 1201 AACATCCCAATATGAGTGTGTTGCGGAATGAGTAAAGTGTAGCCCTGCTGAG 1260
 DB 1201 AACATCCCAATATGAGTGTGTTGCGGAATGAGTAAAGTGTAGCCCTGCTGAG 1260
 QY 1261 TGGCCAAATGCTGCTTGAAGTGGGCGGCTGAGTGTCCAGGGTGGCCCTTCAATGCT 1320
 DB 1261 TGGCCAAATGCTGCTTGAAGTGGGCGGCTGAGTGTCCAGGGTGGCCCTTCAATGCT 1320
 QY 1321 GGTACATGGGCAACAGATGAGTCCGAGCTTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGT 1380
 DB 1321 GGTACATGGGCAACAGATGAGTCCGAGCTTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGT 1380
 QY 1381 TGGAGAAATGAGGAGGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGT 1440
 DB 1381 TGGAGAAATGAGGAGGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGT 1440

QY	1441	ACGAGCGTGTGTGAGTGTCAACATGTGCTGTGATCATAGTTTTCAGAAAGCAGATGTGA	1500
Db	1441	ACGAGCGTGTGTGAGTGTCAACATGTGCTGTGATCATAGTTTTCAGAAAGCAGATGTGA	1500
QY	1501	CCATCATGAGACACACACCTCGGCTGCAGAAATCCTTCATGAGATGATGACAAATGAATACC	1560
Db	1501	CCATCATGAGACACACACCTCGGCTGCAGAAATCCTTCATGAGATGATGACAAATGAATACC	1560
QY	1561	GGTCCCGTGGGGGCTGCCCGGACAGATGTGATTTGGCTGTGCTCCCTCCCATGTCTGGAGAGA	1620
Db	1561	GGTCCCGTGGGGGCTGCCCGGACAGATGTGATTTGGCTGTGCTCCCTCCCATGTCTGGAGAGA	1620
QY	1621	TCACCCCGTGTTCACACAGAGATGCTGAAGTACGTCCTGTGCTCCCTTCTACTACTATTC	1680
Db	1621	TCACCCCGTGTTCACACAGAGATGCTGAAGTACGTCCTGTGCTCCCTTCTACTACTATTC	1680
QY	1681	AGTAGAGGCTGTGAAAACCCATGTCTGCGAGAGACGAGAGCGAGAACCCAGAGAAAGAG	1740
Db	1681	AGTAGAGGCTGTGAAAACCCATGTCTGCGAGAGACGAGAGCGAGAACCCAGAGAAAGAG	1740
QY	1741	AGATTCATTTGAAAAGTGTGTGTCAAAAGCTGTGCTCTTTGGCTGTATGTGATGCGCAGA	1800
Db	1741	AGATTCATTTGAAAAGTGTGTGTCAAAAGCTGTGCTCTTTGGCTGTATGTGATGCGCAGA	1800
QY	1801	CAATGCGGCTCCGACAGTCAGAGTCAACATCCTTTGCGACAGAGAACAGAAAATCAGAG	1860
Db	1801	CAATGCGGCTCCGACAGTCAGAGTCAACATCCTTTGCGACAGAGAACAGAAAATCAGAG	1860
QY	1861	CGCTGGCTGTGGACCTGTGGGGGCTTATTCAGCTGTGCTCTTCAACCCCAAGTGTGTGCA	1920
Db	1861	CGCTGGCTGTGGACCTGTGGGGGCTTATTCAGCTGTGCTCTTCAACCCCAAGTGTGTGCA	1920
QY	1921	TGATATAGTACAGGCTGAGTGTGCTGTGAGAGAGAACGGCTGCTGTTGGTGTGACAGTA	1980
Db	1921	TGATATAGTACAGGCTGAGTGTGCTGTGAGAGAGAACGGCTGCTGTTGGTGTGACAGTA	1980
QY	1981	CGTTTGGCAATGAGAGACTGCGCTGGGCAATGAGAGAAATGGAAGAAATGCGCTTCATAGC	2040
Db	1981	CGTTTGGCAATGAGAGACTGCGCTGGGCAATGAGAGAAATGGAAGAAATGCGCTTCATAGC	2040
QY	2041	TGAAAAGCTCAACACAAATTCAGTACGCTGTGTTGGCTGTGGCTCCAGCATGTACC	2100
Db	2041	TGAAAAGCTCAACACAAATTCAGTACGCTGTGTTGGCTGTGGCTCCAGCATGTACC	2100
QY	2101	CTCGGTCTGCGCCTTGTGCTATGATGATGATGATGATGATGATGATGATGATGATGATGATG	2160
Db	2101	CTCGGTCTGCGCCTTGTGCTATGATGATGATGATGATGATGATGATGATGATGATGATGATG	2160
QY	2161	AGCTCACCCGATGGGAGAGGGGATGAGCTAGTGGCAGAGAGAGCCTTCCGCAAGCT	2220
Db	2161	AGCTCACCCGATGGGAGAGGGGATGAGCTAGTGGCAGAGAGAGCCTTCCGCAAGCT	2220
QY	2221	GGGCGCTGTGAAACCTTTCAAAGGACGCTGTGAGACGTTGATGTCCGAGGCAAAACAGACA	2280
Db	2221	GGGCGCTGTGAAACCTTTCAAAGGACGCTGTGAGACGTTGATGTCCGAGGCAAAACAGACA	2280
QY	2281	TTTCAGATCCCCAAGCTTACACCTCCATGTGACTGGGACCCCGACACACTACAGGCTCG	2340
Db	2281	TTTCAGATCCCCAAGCTTACACCTCCATGTGACTGGGACCCCGACACACTACAGGCTCG	2340
QY	2341	TGCAGAGACTCACAGCCTTTGGAAGCTCAGCAAAAGCCTCAGCAGCATGCATCCAAAGAGC	2400
Db	2341	TGCAGAGACTCACAGCCTTTGGAAGCTCAGCAAAAGCCTCAGCAGCATGCATCCAAAGAGC	2400
QY	2401	TGTTACACATGAGGCTCAAAATCTCGGACAGAAATCTACAAAGTCCGACATCCAGCGGTGCCA	2460
Db	2401	TGTTACACATGAGGCTCAAAATCTCGGACAGAAATCTACAAAGTCCGACATCCAGCGGTGCCA	2460
QY	2461	CCATCTCTGTGGAAGTCTCTGTGAGAGTGGCCAAAGGCTGAAATACCTGCGGGGAGC	2520
Db	2461	CCATCTCTGTGGAAGTCTCTGTGAGAGTGGCCAAAGGCTGAAATACCTGCGGGGAGC	2520
QY	2521	ACCTTGGGGGTTTGGCCAGGACACAGCGCGGCTGTGTCACAAAGCATCTGGAGCGAGTGG	2580
Db	2521	ACCTTGGGGGTTTGGCCAGGACACAGCGCGGCTGTGTCACAAAGCATCTGGAGCGAGTGG	2580
QY	2581	TGATGAGCCCAACACCCACAGACAGTGGCTGTGAGAGACCTGATGATGATGAGTGGACGT	2640
Db	2581	TGATGAGCCCAACACCCACAGACAGTGGCTGTGAGAGACCTGATGATGATGATGAGTGGACGT	2640
QY	2641	ACTGGTCAGTACAAAGAGGTGTGCCCCCTGTCTACTACAGAGGCTTCACTACTTCCC	2700
Db	2641	ACTGGTCAGTACAAAGAGGTGTGCCCCCTGTCTACTACAGAGGCTTCACTACTTCCC	2700
QY	2701	CGGACATCACACACCCCAACCCAGCTGTGCTGTCCAAAGAGTGGGCTGAGGAGCAGAG	2760
Db	2701	CGGACATCACACACCCCAACCCAGCTGTGCTGTCCAAAGAGTGGGCTGAGGAGCAGAG	2760
QY	2761	AAGAGCTGTGAGACACAGAGCTGTGAGGCGCTGTGACAGCCCTCAGATACAGCAATGGA	2820
Db	2761	AAGAGCTGTGAGACACAGAGCTGTGAGGCGCTGTGACAGCCCTCAGATACAGCAATGGA	2820
QY	2821	AGTTACACACAGGCTCCACATTCCTGAGAGTGTCTAAGAGAGTTCCTGCTGCGGTGT	2880
Db	2821	AGTTACACACAGGCTCCACATTCCTGAGAGTGTCTAAGAGAGTTCCTGCTGCGGTGT	2880
QY	2881	CTGCTGCTTCTGCTTCTTCCAGCTCCCAATTCGAAAGCCCAAGTCTCTACTCATAGCT	2940
Db	2881	CTGCTGCTTCTGCTTCTTCCAGCTCCCAATTCGAAAGCCCAAGTCTCTACTCATAGCT	2940
QY	2941	CCCTCCGGGATCACAGGCTCCACAGAGATTCACCTGACTGTGGCGCTGTACCTACACA	3000
Db	2941	CCCTCCGGGATCACAGGCTCCACAGAGATTCACCTGACTGTGGCGCTGTACCTACACA	3000
QY	3001	CCGAGATGAGCCACAGGCTCCCTCAGCAGAGTGTGACAGACATGAGGCTCAACACAGCTGA	3060
Db	3001	CCGAGATGAGCCACAGGCTCCCTCAGCAGAGTGTGACAGACATGAGGCTCAACACAGCTGA	3060
QY	3061	AGCCCCAAGACCCAGTGTGCTGTTGTGCGAATGCCAGGCGCTTCCACCTCCCGAGAG	3120
Db	3061	AGCCCCAAGACCCAGTGTGCTGTTGTGCGAATGCCAGGCGCTTCCACCTCCCGAGAG	3120
QY	3121	ATCCCTCCCACTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG	3180
Db	3121	ATCCCTCCCACTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG	3180
QY	3181	TCTGGAGCAAGCGCTTCATGACTCCACACAGAGGATGAGGAGAGGCGCATGACTCT	3240
Db	3181	TCTGGAGCAAGCGCTTCATGACTCCACACAGAGGATGAGGAGAGGCGCATGACTCT	3240
QY	3241	TGCTGTTTGGGTGCGCGCGCCAGATGAGACACATCTTACAGAGAGATGTCTGAGAGA	3300
Db	3241	TGCTGTTTGGGTGCGCGCGCCAGATGAGACACATCTTACAGAGAGATGTCTGAGAGA	3300

D	841	TCGATCCCGGACGCTGTTCCACTGCCCCGGGAATGTTTAAACATCTCTCAGACAGTTC	900
Q	901	GTTTACTCCACCAACATATGGCAACATCAGTCCGCCATCACCCTGTTTCCCCAGCGAGTG	960
D	901	GTTTACTCCACCAACATATGGCAACATCAGTCCGCCATCACCCTGTTTCCCCAGCGAGTG	960
Q	961	ATGGCAAGCACACTCCCGGTGTGGAAATGTCAGCTCATCCGGTATGTTGGCTACACGA	1020
D	961	ATGGCAAGCACACTCCCGGTGTGGAAATGTCAGCTCATCCGGTATGTTGGCTACACGA	1020
Q	1021	TGCCAGATATGGACATCAGAGGGACCCCTGCCAACGTGGAAATTACTCAGCTGTGCATCG	1080
D	1021	TGCCAGATATGGACATCAGAGGGACCCCTGCCAACGTGGAAATTACTCAGCTGTGCATCG	1080
Q	1081	ACCTGGGCTGGAAAGCCCAAGTACGGCGCGCTTGATGTGGTCCCTGCTTGCAGGCCA	1140
D	1081	ACCTGGGCTGGAAAGCCCAAGTACGGCGCGCTTGATGTGGTCCCTGCTTGCAGGCCA	1140
Q	1141	ATGCGCTGACCTTGAGCTCTTTCGAAATCCACCTGACCTTGTGTTAGGTGGCCATGG	1200
D	1141	ATGCGCTGACCTTGAGCTCTTTCGAAATCCACCTGACCTTGTGTTAGGTGGCCATGG	1200
Q	1201	AACATCCCAATPACGAGTGTTCGGGAACTGGAGCTAAATGGTAGCCCTGCTTCAG	1260
D	1201	AACATCCCAATPACGAGTGTTCGGGAACTGGAGCTAAATGGTAGCCCTGCTTCAG	1260
Q	1261	TGGCCCAACATGCTCTTGAGGTGGCGGCTGAGATTCCAGGGGCGCCCTTCATGGCT	1320
D	1261	TGGCCCAACATGCTCTTGAGGTGGCGGCTGAGATTCCAGGGGCGCCCTTCATGGCT	1320
Q	1321	GGTACATGGGACAGAGATTCGGGACCTTCTGTGACGTCCAGCGCTTACAACATCC	1380
D	1321	GGTACATGGGACAGAGATTCGGGACCTTCTGTGACGTCCAGCGCTTACAACATCC	1380
Q	1381	TGGAAGAGTGGGACAGAGATTCGGGACCTTTCGAAACGACAAAGCTGGCTCTGGAAAG	1440
D	1381	TGGAAGAGTGGGACAGAGATTCGGGACCTTTCGAAACGACAAAGCTGGCTCTGGAAAG	1440
Q	1441	ACGAGGTGTCGTGATGATCAACATCTGTGTGATCCATAGTTTTCAGAGCAGATGTA	1500
D	1441	ACGAGGTGTCGTGATGATCAACATCTGTGTGATCCATAGTTTTCAGAGCAGATGTA	1500
Q	1501	CCATCATGAGCACACCATCGGCTGCAGAAATCTTCATGAGATACATGCAGAAATGAAATCC	1560
D	1501	CCATCATGAGCACACCATCGGCTGCAGAAATCTTCATGAGATACATGCAGAAATGAAATCC	1560
Q	1561	GGTCCCTGGGGGCTGCGCCGACAGACTGGATTGGCTGCTCCCTCCATGTCTGGGAGCA	1620
D	1561	GGTCCCTGGGGGCTGCGCCGACAGACTGGATTGGCTGCTCCCTCCATGTCTGGGAGCA	1620
Q	1621	TCACCCCGCTGTTTCACACAGAGATGCTGAACACGTCCTGCTTCTTCTACTACTATTC	1680
D	1621	TCACCCCGCTGTTTCACACAGAGATGCTGAACACGTCCTGCTTCTTCTACTACTATTC	1680
Q	1681	AGGTAAAGGCTGTGAAACCCATGTGTGCGAGGAGAAAGCGGAGACCCCAAGAAAGAG	1740
D	1681	AGGTAAAGGCTGTGAAACCCATGTGTGCGAGGAGAAAGCGGAGACCCCAAGAAAGAG	1740
Q	1741	AGATTCCATTGAAAGCTTGGTCAAAAGCTGTGCTTTCCTGCTATGCTGATGCTCCAGAA	1800
D	1741	AGATTCCATTGAAAGCTTGGTCAAAAGCTGTGCTTTCCTGCTATGCTGATGCTCCAGAA	1800
Q	1801	CAATGGCGTCCGAGTCAAGATCACCATCTCTTTCGACAGAGACAGAAATCAGAGG	1860
D	1801	CAATGGCGTCCGAGTCAAGATCACCATCTCTTTCGACAGAGACAGAAATCAGAGG	1860
Q	1861	CGCTGGCTGGGACCGGGGGCTTATAGTGTGCTTCAACCCCAAGTTGTCTGCA	1920
D	1861	CGCTGGCTGGGACCGGGGGCTTATAGTGTGCTTCAACCCCAAGTTGTCTGCA	1920
Q	1921	TGGATTAAGTACAGGCTGAGCTGAGCTGCTGGAGAGGAACGGCTGCTGTGGTGGACAGTA	1980
D	1921	TGGATTAAGTACAGGCTGAGCTGAGCTGCTGGAGAGGAACGGCTGCTGTGGTGGACAGTA	1980

QY 3061 AGCCCCAAGACCCAGTGGCTGCTTTGTGGGATGCCAGGCGCTTCCACCTCCCGGAG 3120
| | | | |
Db 3061 AGCCCCAAGACCCAGTGGCTGCTTTGTGGGATGCCAGGCGCTTCCACCTCCCGGAG 3120
QY 3121 ATCCCTCCCATCTTGCATCTCCATCGGGGCGGACAGGGAATGGTGGCTTCCGCACTT 3180
| | | | |
Db 3121 ATCCCTCCCATCTTGCATCTCCATCGGGGCGGACAGGGAATGGTGGCTTCCGCACTT 3180
QY 3181 TGTGGAGCAAGCGGCTCCATGACTCCACAGCAGAGGAGTGGGAGGCGCGCATGACT 3240
| | | | |
Db 3181 TGTGGAGCAAGCGGCTCCATGACTCCACAGCAGAGGAGTGGGAGGCGCGCATGACT 3240
QY 3241 TGTGTGGTGGTGGCGCGCGCGCGAGATGAGAGACCATCTACAGAGAGAGATGCTGGAGA 3300
| | | | |
Db 3241 TGTGTGGTGGTGGCGCGCGCGCGAGATGAGAGACCATCTACAGAGAGAGATGCTGGAGA 3300
QY 3301 TGGCCCAAGAGAGGAGGCTGTCATGCGGTGCACACAGACCATTCCTCCGCTGGCAAGC 3360
| | | | |
Db 3301 TGGCCCAAGAGAGGAGGCTGTCATGCGGTGCACACAGACCATTCCTCCGCTGGCAAGC 3360
QY 3361 CCAAGGCTATATGTTCAAGACATCTGCGGAGAGCTGGCCACGAGGCTGCTCCGTGTC 3420
| | | | |
Db 3361 CCAAGGCTATATGTTCAAGACATCTGCGGAGAGCTGGCCACGAGGCTGCTCCGTGTC 3420
QY 3421 TCCACAGAGAGAGGCGGCGGCGGCGGATGTTGGGAGGATGCGGCGGCGGAGAGCTGG 3480
| | | | |
Db 3421 TCCACAGAGAGAGGCGGCGGCGGCGGATGTTGGGAGGATGCGGCGGCGGAGAGCTGG 3480
QY 3481 CCCACACCCCTGAGACAGCTGGTGGTCCCAAGCTGAATTAATGAGAGAGAGCTGGAG 3540
| | | | |
Db 3481 CCCACACCCCTGAGACAGCTGGTGGTCCCAAGCTGAATTAATGAGAGAGAGCTGGAG 3540
QY 3541 ACTATTTCTTTCAGCTCAAGAGCCACAGGCGCTATACAGAGATATCTTGGTGGTAT 3600
| | | | |
Db 3541 ACTATTTCTTTCAGCTCAAGAGCCACAGGCGCTATACAGAGATATCTTGGTGGTAT 3600
QY 3601 TTCTCTTACGAGGCGAAGAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3660
| | | | |
Db 3601 TTCTCTTACGAGGCGAAGAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3660
QY 3661 CGCTCTGAGGCGCTACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3720
| | | | |
Db 3661 CGCTCTGAGGCGCTACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3720
QY 3721 GCTCTGATTAATCTGAGGAGTACAGAGGCGCTGGGAGATGAGAGAGATGATCCCGAGC 3780
| | | | |
Db 3721 GCTCTGATTAATCTGAGGAGTACAGAGGCGCTGGGAGATGAGAGAGATGATCCCGAGC 3780
QY 3781 CTCAAGTCTTATTTCTCAACAGTGTCTCCCATCAGCCCTTACTTGACCTCTTAACAA 3840
| | | | |
Db 3781 CTCAAGTCTTATTTCTCAACAGTGTCTCCCATCAGCCCTTACTTGACCTCTTAACAA 3840
QY 3841 GTACAGCCCTGATGATGAGAGGCTCTCTCTCAAACTGGGCGCTCCGCTGGCTTGG 3900
| | | | |
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Db 4081 ACTTGGGCTTCCCTGTATGATTCCTGTATGAGATATTACATGAATGATGATTTACTT 4140

QY 4141 TAATC 4145
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Db 4141 TAATC 4145

RESULT 15
US-09-543-679A-2509
: Sequence 2509, Application US/09543679A
: GENERAL INFORMATION:
: APPLICANT: NYCE, Jonathan W.
: TITLE OF INVENTION: LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE,
: COMPOSITIONS, KIT & METHOD FOR TREATMENT
: OF AIRWAY DISORDERS ASSOCIATED WITH
: BRONCHOCONSTRICITION, LUNG INFLAMMATION,
: NUMBER OF SEQUENCES: 3111
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: EPIGENESIS PHARMACEUTICALS, INC.
: STREET: 7 Clarke Drive
: CITY: Cranbury
: STATE: NJ
: COUNTRY: USA
: ZIP: 08512
: COMPUTER READABLE FORM:
: MEDIUM TYPE: CD-R
: COMPUTER: IBM Compatible
: OPERATING SYSTEM: DOS
: SOFTWARE: N/A
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/09/543, 679A
: FILING DATE: 13-Apr-2000
: CLASSIFICATION: UNKNOWN
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: 60/127, 958
: FILING DATE: 1998-08-03
: ATTORNEY/AGENT INFORMATION:
: NAME: Amzel, Viviana
: REGISTRATION NUMBER: 30, 930
: REFERENCE/DOCKET NUMBER: Epi-0067191b
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: 609-409-3035
: TELEFAX: 413-254-9245
: TELEX: <Unknown>
: INFORMATION FOR SEQ ID NO: 2509:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 9513 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: single
: TOPOLOGY: linear
: SEQUENCE DESCRIPTION: SEQ ID NO: 2509:
US-09-543-679A-2509
Query Match 100.0%; Score 4145; DB 21; Length 9513;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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| | | | |
Db 1412 AGCCAGTGAAGCCGACAGTGAAGACATCTGAGCTCAAAATCAGATTAAGTACATA 1471
QY 181 GTGACCTGCTTTGTAAGCCATAGAGATGCTGCTTGGAAATTTCTGTTCAAGACA 240
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Db 1472 GTGACCTGCTTTGTAAGCCATAGAGATGCTGCTTGGAAATTTCTGTTCAAGACA 1531
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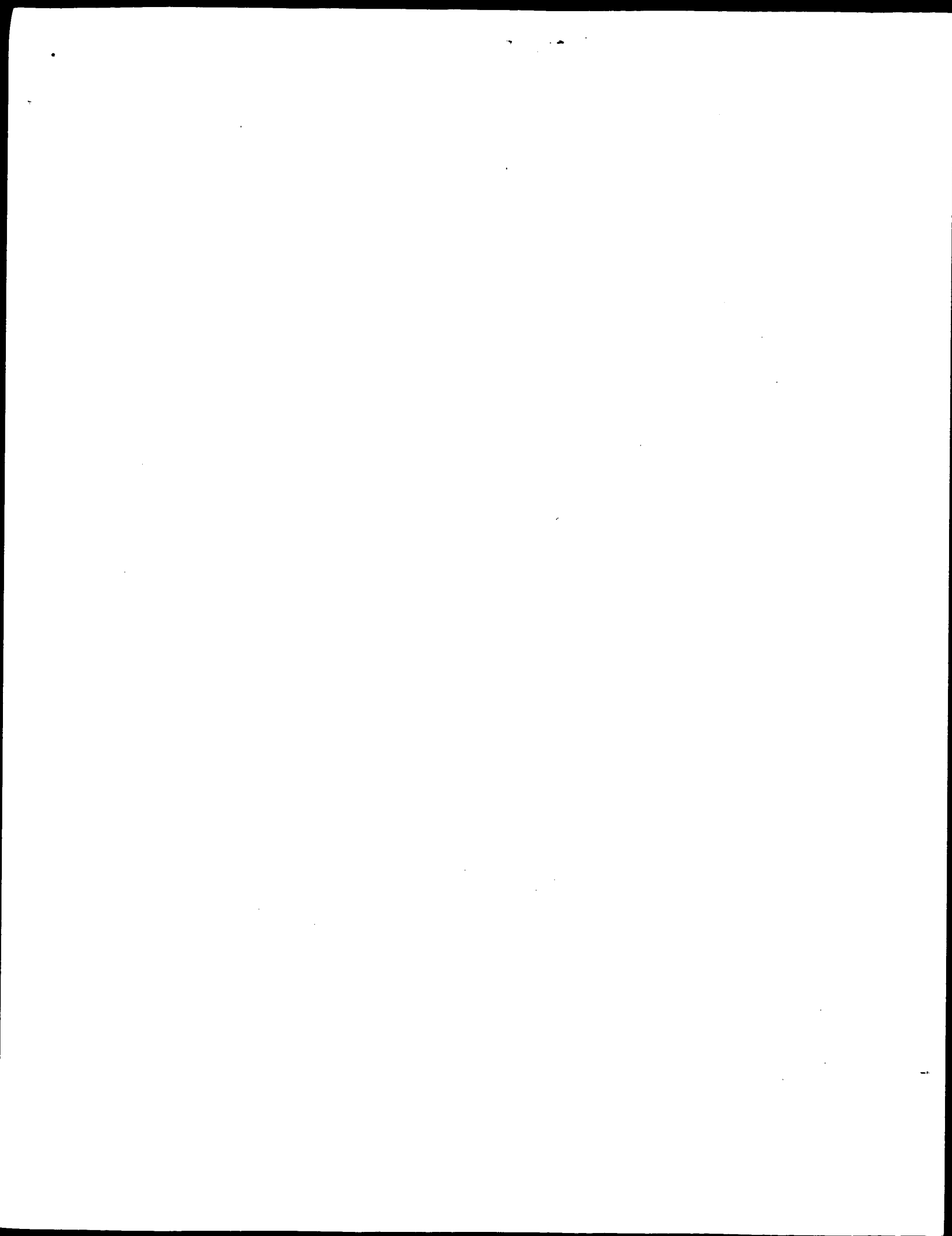
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Db 1592 CCTGTGCACCTCCAGTCCAGTGCAGACAGATGACCTTCAATATCACAACTCGACAGC 1651
QY 361 AGCAGATGATGATCCCGGAGCCCTCGTGTGAGAGGAGGAAAGTCTCCAGAACTCTGG 420
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QY 421 TCAAGCTGTGATGCAACCCCATTTGCTCCAGGCGCATGTGAGATCAAAAATCGGGCA 480
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QY 661 GCTCTCTTCAAGAGGCAAAAATATAGAGACATCTGGCCAGGTGTGAAGCGGTAAAGG 720
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QY 781 AGGCTGTGGCGCAATGCCCCACGCTGCAATTTGGAGATGCCAGTGTCAACTGTGACGTCT 840
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QY 1081 ACCTGGGCTGTGAAGCCCAAGTACGGCGCTTCATGTGTGCTCCCTGCTGCGAGGCA 1140
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QY 1141 ATGGCGGTGACCTGAGCTTCCGAATTCACCTGACCTTGTCTTGAAGTGGCCATGG 1200
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QY 1261 TGGCCCAATGCTGCTTGAAGTGTGGCGCTGTGAGATTCACAGGTGCTCCCTTCAATGGCT 1320
Db 2552 TGGCCCAATGCTGCTTGAAGTGTGGCGCTGTGAGATTCACAGGTGCTCCCTTCAATGGCT 2611
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Db 2612 GTTACATGGGCAAGAGATCGGAGTCCGGGACTTCTGTGAGCTCCAGGCGCTACCAATCC 2671

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QY 1621 TCACCCCGTGTTCACAGAGATGCTGAACTAGCTCTGTCTGCTCCCTTCTACTATTC 1680
Db 2912 TCACCCCGTGTTCACAGAGATGCTGAACTAGCTCTGTCTGCTCCCTTCTACTATTC 2971
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QY 1801 CAATGCGCTCCCGAGTCCAGATCAACATCTCTTGTGAGAGAGAGAGAGAGAGAGAG 1860
Db 3092 CAATGCGCTCCCGAGTCCAGATCAACATCTCTTGTGAGAGAGAGAGAGAGAGAGAG 3151
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Search completed: March 14, 2003, 15:55:55
 Job time : 8519 secs



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QY 1962 CTGTTGGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2021
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QY 2082 CTGCGTCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2141
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|||||
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US-10-210-682-1
Sequence 1, Application US/10210682
GENERAL INFORMATION:
APPLICANT: Olson-Munoz, Marilyn C.
APPLICANT: Donald, Glen
TITLE OF INVENTION: Screening Nutraaceuticals
FILE REFERENCE: PORS-07289
CURRENT APPLICATION NUMBER: US/10/210,682
CURRENT FILING DATE: 2002-12-10
PRIOR APPLICATION NUMBER: 60/309,279
PRIOR FILING DATE: 2001-08-01
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
LENGTH: 3855
TYPE: RNA
ORGANISM: Homo sapiens
US-10-210-682-1
Query Match 73.3%; Score 3039; DB 8; Length 3855;
Best Local Similarly 80.1%; Pred. No. 0;
Matches 3086; Conservative 753; Mismatches 16; Indels 0; Gaps 0;
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61 CACAGGUCUUCUUCUGUUGAUGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 120
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Db 1561 GCTGCCGGGAGAGATTTGGTGTGCTCCCTCCATGTGTGGAGAGATCACCCCGTGT 1620
QY 1633 TTTCACAGAGAGATCTGAATCTGCTGCTCCCTTCTACTACTATCAGATGAGGCT 1692
| | | | |
Db 1621 TTTCACAGAGAGATCTGAATCTGCTGCTCCCTTCTACTACTATCAGATGAGGCT 1680
QY 1693 GGAAGAACCATGTCTGGCAGAGACGAAAGGAGACCCCAAGAGAGATTCATTTGA 1752
| | | | |

Db 1681 GGAAGAACCATGTCTGGCAGAGAGAGAGAGGAGGAGACCCCAAGAGAGAGATTCATTTGA 1740
| | | | |
QY 1753 AAGTCTTGTCAAAAGCTGTCTCTTTGCTGTATGTGATGCGCAAGACATGGCTGCC 1812
| | | | |
Db 1741 AAGTCTTGTCAAAAGCTGTCTCTTTGCTGTATGTGATGCGCAAGACATGGCTGCC 1800
QY 1813 GAGTCAGAGTCAACATCTCTTGTGAGAGAGACAGAAATCAGAGGGGCTGGCTGG 1872
| | | | |
Db 1801 GAGTCAGAGTCAACATCTCTTGTGAGAGAGACAGAGAGAGAGAGAGAGAGAGAGAGAG 1860
QY 1873 ACCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGGTGTGCTCATGATTAAGTACA 1932
| | | | |
Db 1861 ACCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGGTGTGCTCATGATTAAGTACA 1920
QY 1933 GCGTGAAGTCTGCTGAGAGAGAAAGCGCTGCTGTGTGTGATGACAGTACGTTGGCAATG 1992
| | | | |
Db 1921 GCGTGAAGTCTGCTGAGAGAGAAAGCGCTGCTGTGTGTGATGACAGTACGTTGGCAATG 1980
QY 1993 GAGACTGCCCCCTGCAATGAGAGAACTGAAAGAAATCGCTTCATGCTGAAAGAGCTCA 2052
| | | | |
Db 1981 GAGACTGCCCCCTGCAATGAGAGAACTGAAAGAAATCGCTTCATGCTGAAAGAGCTCA 2040
QY 2053 ACAACAAATTCAGGTACGCTGTGTTGGCTCGGCTCCAGATGTACCTCGGTTCTGGC 2112
| | | | |
Db 2041 ACAACAAATTCAGGTACGCTGTGTTGGCTCGGCTCCAGATGTACCTCGGTTCTGGC 2100
QY 2113 CCTTGTCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2172
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Db 2101 CCTTGTCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2160
QY 2173 TGGAGAGAGGGGATGAGCTAGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2232
| | | | |
Db 2161 TGGAGAGAGGGGATGAGCTAGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220
QY 2233 CCTTCAAGGAGGCTGTGAGAGTGTGATGTCCGAGGCAACAGCATTTCAATCCCA 2292
| | | | |
Db 2221 CCTTCAAGGAGGCTGTGAGAGTGTGATGTCCGAGGCAACAGCATTTCAATCCCA 2280
QY 2293 AGCTTACACCTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2352
| | | | |
Db 2281 AGCTTACACCTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2340
QY 2353 AGCTTGTGACCTCAGCAAAAGCCCTCAGAGATGATGATGATGATGATGATGATGATGATG 2412
| | | | |
Db 2341 AGCTTGTGACCTCAGCAAAAGCCCTCAGAGATGATGATGATGATGATGATGATGATGATG 2400
QY 2413 GGCTCAATCTGGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2472
| | | | |
Db 2401 GGCTCAATCTGGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2460
QY 2473 AACTCTCTGTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2532
| | | | |
Db 2461 AACTCTCTGTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2520
QY 2533 GCCCAGGACCAAGCGCGGCTGTGTCAGAGGATCCTGAGAGAGTGTGATGATGATGATGATGATG 2592
| | | | |
Db 2521 GCCCAGGACCAAGCGCGGCTGTGTCAGAGGATCCTGAGAGAGTGTGATGATGATGATGATGATG 2580
QY 2593 CACCCACCAAGAGAGTGGCTGTGAGAGAGTGTGATGATGATGATGATGATGATGATGATG 2652
| | | | |
Db 2581 CACCCACCAAGAGAGTGGCTGTGAGAGAGTGTGATGATGATGATGATGATGATGATGATG 2640
QY 2653 ACAAGAGGCTGCGGCTGCTCAGTACAGAGAGGCTCAGTACCTACCTACCTACCTACCTACCTAC 2712
| | | | |
Db 2641 ACAAGAGGCTGCGGCTGCTCAGTACAGAGAGGCTCAGTACCTACCTACCTACCTACCTACCTAC 2700
QY 2713 CACCCCAACCAAGCTGTGCTCCAAAAGCTGGCCAGAGTGGCCACAGAAAGAGCTTGAGA 2772
| | | | |
Db 2701 CACCCCAACCAAGCTGTGCTCCAAAAGCTGGCCAGAGTGGCCACAGAAAGAGCTTGAGA 2760
QY 2773 GACAGAGGCTGAGGCTGCTGCTCAGGCTCAGATGATGATGATGATGATGATGATGATGATG 2832
| | | | |

Db 2761 GACAGAGCTGGAGGCGCTGTGCCAGCCCTCAGAGTACAGCAAGTGAAGTTCCACCAACA 2820
 QY 2833 GCGCCACATTCTCTGGAGAGTGTCTAGAGAGTTCCTCCCTGGGGGTGTCTGTGGCTCC 2892
 Db 2821 GCGCCACATTCTCTGGAGAGTGTCTAGAGAGTTCCTCCCTGGGGGTGTCTGTGGCTCC 2880
 QY 2893 TGGTTCCCGAGTCCCGATTCCTGAAAGCCCAAGGTTCTACTCCATCCAGCTCCCGGGATC 2952
 Db 2881 TGGTTCCCGAGTCCCGATTCCTGAAAGCCCAAGGTTCTACTCCATCCAGCTCCCGGGATC 2940
 QY 2953 ACACGCCCAAGAGATCCAGCTGACTGTGGCCGTGGTCACTACACACCCGAGATGGCC 3012
 Db 2941 ACACGCCCAAGAGATCCAGCTGACTGTGGCCGTGGTCACTACACACCCGAGATGGCC 3000
 QY 3013 AGGGTCCCTGACACCGAGTGTCTGAGACATGGCTCAACAGCTGAAAGCCCAAGAGC 3072
 Db 3001 AGGGTCCCTGACACCGAGTGTCTGAGACATGGCTCAACAGCTGAAAGCCCAAGAGC 3060
 QY 3073 CAGTGGCTGTGCTTGTGGGGAATGCCAGGCGCTTCCACCTCCCGAGAGATCCCTCCATC 3132
 Db 3061 CAGTGGCTGTGCTTGTGGGGAATGCCAGGCGCTTCCACCTCCCGAGAGATCCCTCCATC 3120
 QY 3133 CTTCGATCTCATCGGGCTGGGCACAGGCACTGCGCTTCCGCACTTTCTGCAAGAAC 3192
 Db 3121 CTTCGATCTCATCGGGCTGGGCACAGGCACTGCGCTTCCGCACTTTCTGCAAGAAC 3180
 QY 3193 GGTTCATGACTCTCCAGCACAGAGAGTGGGGAGGCCGATGACCTTGTGTGTGGGT 3252
 Db 3181 GGTTCATGACTCTCCAGCACAGAGAGTGGGGAGGCCGATGACCTTGTGTGTGGGT 3240
 QY 3253 GCGCGCGCCAGATGAGAGACACATCTACAGAGAGAGATGCTGAGATGGCCCAAGAG 3312
 Db 3241 GCGCGCGCCAGATGAGAGACACATCTACAGAGAGAGATGCTGAGATGGCCCAAGAG 3300
 QY 3313 GGGTGTGATGAGGCGGTGCACACAGCCTATTTCCGCTGCTGGCAAGCCCAAGGTATG 3372
 Db 3301 GGGTGTGATGAGGCGGTGCACACAGCCTATTTCCGCTGCTGGCAAGCCCAAGGTATG 3360
 QY 3373 TTGAGGATCTCTGGCGGACAGCTGTGGCCAGAGTGTCTCGTGTGTCCCAAGAGAG 3432
 Db 3361 TTGAGGATCTCTGGCGGACAGCTGTGGCCAGAGTGTCTCGTGTGTCCCAAGAGAG 3420
 QY 3433 CAGGCGCCTCTATGTTTGGGGGATGTGGCATGGCCCGGAGAGTGGCCCAACCCCTGA 3492
 Db 3421 CAGGCGCCTCTATGTTTGGGGGATGTGGCATGGCCCGGAGAGTGGCCCAACCCCTGA 3480
 QY 3493 AGCAGCTGTGGCTGCCAGCTGAATTTGATGAGAGAGTGTGGAGCTATTTCTTTC 3552
 Db 3481 AGCAGCTGTGGCTGCCAGCTGAATTTGATGAGAGAGTGTGGAGCTATTTCTTTC 3540
 QY 3553 AGCTCAAGAGCCAGAGAGCGCTATCAGAGATATCTTTGGTGTGTATTTCTTTCAGAG 3612
 Db 3541 AGCTCAAGAGCCAGAGAGCGCTATCAGAGATATCTTTGGTGTGTATTTCTTTCAGAG 3600
 QY 3613 CGAAGAGAGCAGAGGCTGGCGGTGACGCCAGAGCCTGAGATGTGAGCGCTTGAAGG 3672
 Db 3601 CGAAGAGAGCAGAGGCTGGCGGTGACGCCAGAGCCTGAGATGTGAGCGCTTGAAGG 3660
 QY 3673 CTACAGAGAGGTTAAAGTGTCCCGGACAGAACTTAAAGATGAGAGCAGTGTGCTTAT 3732
 Db 3661 CTACAGAGAGGTTAAAGTGTCCCGGACAGAACTTAAAGATGAGAGCAGTGTGCTTAT 3720
 QY 3733 CTGAGGTACAGAGGCTGGGGAGATGAGAGAAAGTATATCCCGAGGCTCAAGTCTTAT 3792
 Db 3721 CTGAGGTACAGAGGCTGGGGAGATGAGAGAAAGTATATCCCGAGGCTCAAGTCTTAT 3780
 QY 3793 TTCTCAAGCTGTCTCCATCAAGCCTTTACTTGAACCTCTTAACAGTACACCTG 3852
 Db 3781 TTCTCAAGCTGTCTCCATCAAGCCTTTACTTGAACCTCTTAACAGTACACCTG 3840
 QY 3853 ATTGATGGAGCTC 3867
 Db 3841 ATTGATGGAGCTC 3855

RESULT 5
 US-09-724-676-37685
 ; Sequence 37685, Application US/09724676
 ; GENERAL INFORMATION:
 ; APPLICANT: Comugen LTD
 ; TITLE OF INVENTION: Variants of alternative splicing
 ; FILE REFERENCE: 129181.4 Comugen
 ; CURRENT APPLICATION NUMBER: US/09/724,676
 ; NUMBER OF SEQ ID NOS: 97222
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 37685
 ; LENGTH: 3984
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-09-724-676-37685

Query Match 70.1%; Score 2906; DB 6; Length 3984;
 Best Local Similarity 99.7%; Pred. No. 0;
 Matches 3356; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

QY 1 CTGCTTAAATCTCTGCGCCACCTTGTGATGAGGGAGTGGGCACTTGTAGACAGTCCG 60
 Db 29 CTGCTTAAATCTCTGCGCCACCTTGTGATGAGGGAGTGGGCACTTGTAGACAGTCCG 88
 QY 61 AAGTCTCAAGGACAGGTCTCTTCGCTGTGACTGTCTTACCCGGGAGGACAGTGC 120
 Db 89 AAGTCTCAAGGACAGGTCTCTTCGCTGTGACTGTCTTACCCGGGAGGACAGTGC 148
 QY 121 AGCCAGCTGAAGCCCAAGTGAAGATCTGAGTCAATTCAGATAGTACATTA 180
 Db 149 AGCCAGCTGAAGCCCAAGTGAAGATCTGAGTCAATTCAGATAGTACATTA 208
 QY 181 GTGACCTCTTTGTAAGCCATGAGATGGCTGTCTTGAAGAAATTTCTGTAAGACA 240
 Db 209 GTGACCTCTTTGTAAGCCATGAGATGGCTGTCTTGAAGAAATTTCTGTAAGACA 268
 QY 241 AATTCACCAATGATCATGTAATGGGAAAGAAACATCAACAAATGTGAGAAAGCC 300
 Db 269 AATTCACCAATGATCATGTAATGGGAAAGAAACATCAACAAATGTGAGAAAGCC 328
 QY 301 CCTGTGCACCTCCAGTCCAGTGAACAGATGAGTGAACCTTCAATCACAACCTCAGAAC 360
 Db 329 CCTGTGCACCTCCAGTCCAGTGAACAGATGAGTGAACCTTCAATCACAACCTCAGAAC 388
 QY 361 AGCAGATGATGTCGCCGACGCCCTGTGTGAGAGCGGAAAGTCTCAGAAATCTTGG 420
 Db 389 AGCAGATGATGTCGCCGACGCCCTGTGTGAGAGCGGAAAGTCTCAGAAATCTTGG 448
 QY 421 TCAAGCTGGATCAACCCCATTTGCTCCCAAGGATGTGAGATCAAAATCTGGGCA 480
 Db 449 TCAAGCTGGATCAACCCCATTTGCTCCCAAGGATGTGAGATCAAAATCTGGGCA 508
 QY 481 GCGGATGACTTTCAGAGACACTTCAACATTAAGGCCAAAGGATTTTAACTTGAAGT 540
 Db 509 GCGGATGACTTTCAGAGACACTTCAACATTAAGGCCAAAGGATTTTAACTTGAAGT 568
 QY 541 CCAAAATCTTGGCTGGGGTCAATTAATGACTCCCAAAAGTTGACGACAGAGACCCGAGGCA 600
 Db 569 CCAAAATCTTGGCTGGGGTCAATTAATGACTCCCAAAAGTTGACGACAGAGACCCGAGGCA 628
 QY 601 AGCTACCCCTCAGATGAGTCTTACCTCAAGCTATGGAATTTGTCAACCAATATTAG 660
 Db 629 AGCTACCCCTCAGATGAGTCTTACCTCAAGCTATGGAATTTGTCAACCAATATTAG 688
 QY 661 GCTCTTCAAGAGGCAAAATAGAGAACTTGGCCAGGAGTGAAGCGGTAAACAAG 720
 Db 689 GCTCTTCAAGAGGCAAAATAGAGAACTTGGCCAGGAGTGAAGCGGTAAACAAG 748
 QY 721 AGATGAAACCAAGGAACCTTACACTGAGGAGATGAGCTATCTTCCCAACCAAG 780

Db	749	AGATAGAAACACAGAGAACTTACCACGTACGAGGAGATGAGTCATCTTCCACCAAGC	808
QY	781	AGGCTGGGCAATGCCACAGCTGCAATGGAGGATCCAGTGGTCAACCTGACAGTCT	840
Db	809	AGGCTGGGCAATGCCACAGCTGCAATGGAGGATCCAGTGGTCAACCTGACAGTCT	868
QY	841	TCGATGCCGACAGTGTTCACAGTCCCGGGAATGTTTGAACACATCTGACAGACGTGC	900
Db	869	TCGATGCCGACAGTGTTCACAGTCCCGGGAATGTTTGAACACATCTGACAGACGTGC	928
QY	901	GTTACTCCACCAACATGGCAACATGAGTGGGCTATCCACCGGTGTTCCCGAGCGAGTG	960
Db	929	GTTACTCCACCAACATGGCAACATGAGTGGGCTATCCACCGGTGTTCCCGAGCGAGTG	988
QY	961	ATGGCAAGCAGCACTTCCGGGTGGAATGCTCAGCTCATCCGCTATGCTGGCTACAGA	1020
Db	989	ATGGCAAGCAGCACTTCCGGGTGGAATGCTCAGCTCATCCGCTATGCTGGCTACAGA	1048
QY	1021	TGCCAATGGCAGCATCAGAGGGGACCTGGCAACGTGGAATTTCACTCAGCTGTGATCG	1080
Db	1049	TGCCAATGGCAGCATCAGAGGGGACCTGGCAACGTGGAATTTCACTCAGCTGTGATCG	1108
QY	1081	ACCTGGGCTGGAAGCCCAAGTACGGCGCTTGATGTGGTCCCGTGTCTGACAGCCA	1140
Db	1109	ACCTGGGCTGGAAGCCCAAGTACGGCGCTTGATGTGGTCCCGTGTCTGACAGCCA	1168
QY	1141	ATGGCGGTACCTCGAGCTTCTGCAATTCACCTGACCTTGTCTGAGTGGCCATGG	1200
Db	1169	ATGGCGGTACCTCGAGCTTCTGCAATTCACCTGACCTTGTCTGAGTGGCCATGG	1228
QY	1201	AACATCCCAATACAGTGTGTTGGGAACTGAGCTAAAGTGTACGGCCGCTGAG	1260
Db	1229	AACATCCCAATACAGTGTGTTGGGAACTGAGCTAAAGTGTACGGCCGCTGAG	1288
QY	1261	TGGCCAACTGCTGCTTGAAGTGGGCGGCTGAGTTCACAGGTCGCCCTTCAATGGCT	1320
Db	1289	TGGCCAACTGCTGCTTGAAGTGGGCGGCTGAGTTCACAGGTCGCCCTTCAATGGCT	1348
QY	1321	GGTACATGGGCAAGAGATCGAGTCCGGGACTTCTGTGACCTCCAGGCTTCAACATCC	1380
Db	1349	GGTACATGGGCAAGAGATCGAGTCCGGGACTTCTGTGACCTCCAGGCTTCAACATCC	1408
QY	1381	TGGAGGAAGTGGGCAAGAGATGGGCTTGGAAACGACAAAGTGGCTCGCTTGGAAAG	1440
Db	1409	TGGAGGAAGTGGGCAAGAGATGGGCTTGGAAACGACAAAGTGGCTCGCTTGGAAAG	1468
QY	1441	ACCAGGCTGTCTTGAATCAACATTTGCTGATCCATAGTTTTCAGAAAGAGATGTGA	1500
Db	1469	ACCAGGCTGTCTTGAATCAACATTTGCTGATCCATAGTTTTCAGAAAGAGATGTGA	1528
QY	1501	CCATCATGGACACACAGTCCGGCTGAGAACTCTTCATATAAGTACAGTAATGATACC	1560
Db	1529	CCATCATGGACACACAGTCCGGCTGAGAACTCTTCATATAAGTACAGTAATGATACC	1588
QY	1561	GGTCCCGTGGGGGCTGCCCGGACAGTGGATTTGGCTGGTCCCTCCCATGCTGGAGCA	1620
Db	1589	GGTCCCGTGGGGGCTGCCCGGACAGTGGATTTGGCTGGTCCCTCCCATGCTGGAGCA	1648
QY	1621	TCACCCCGTGTGTACAGAGATGCTGAACATAGCTCTGCTGCTTCTACTACTATC	1680
Db	1649	TCACCCCGTGTGTACAGAGATGCTGAACATAGCTCTGCTGCTTCTACTACTATC	1708
QY	1681	AGGTAGAGGCTGGAAAAACCATGCTGGGACGAGAGAAACGGAGAACCCAAAGAAAG	1740
Db	1709	AGGTAGAGGCTGGAAAAACCATGCTGGGACGAGAGAAACGGAGAACCCAAAGAAAG	1768
QY	1741	AGATTTCATTAAGTCTTGGTCAAAAGCTGTCTTGTGCTGTATCTGTGAGGACAGA	1800
Db	1769	AGATTTCATTAAGTCTTGGTCAAAAGCTGTCTTGTGCTGTATCTGTGAGGACAGA	1828
QY	1801	CAATGGGCTCCGAGTCAAGATCAACATCTCTTTCGACAGACAGAGAAATCAGAGG	1860
Db	1829	CAATGGGCTCCGAGTCAAGATCAACATCTCTTTCGACAGACAGAGAAATCAGAGG	1888

QY	1861	GGCTGGCCGGGAGACCTGGGGGCTTATTACAGTGTGCTTCAACCCAAAGTGTGTGCA	1920
Db	1889	GGCTGGCCGGGAGACCTGGGGGCTTATTACAGTGTGCTTCAACCCAAAGTGTGTGCA	1948
QY	1921	TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAAAGGCTCTCTTGGTGTGACAGTA	1980
Db	1949	TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAAAGGCTCTCTTGGTGTGACAGTA	2008
QY	1981	CGTTGGCAATGAGAGCTGCCCTGGCAATGAGAGAAATGGAAGAAATGCTTTATGC	2040
Db	2009	CGTTGGCAATGAGAGCTGCCCTGGCAATGAGAGAAATGGAAGAAATGCTTTATGC	2068
QY	2041	TGAAGAGCTCAACAAATTCAGATAGCTGTGTTGGCTGGCTGGCTCCAGATGATAC	2100
Db	2069	TGAAGAGCTCAACAAATTCAGATAGCTGTGTTGGCTGGCTGGCTCCAGATGATAC	2128
QY	2101	CTGGGTTCTGGGCTTGTCTCATGATGATGATGAGAGCTGTCCACCTGGGGGCTCTC	2160
Db	2129	CTGGGTTCTGGGCTTGTCTCATGATGATGATGAGAGCTGTCCACCTGGGGGCTCTC	2188
QY	2161	AGCTACCCCGATGGGAGAAAGGGATAGCTCACTGGGCAAGAGAGAGCTTCCGAGCT	2220
Db	2189	AGCTACCCCGATGGGAGAAAGGGATAGCTCACTGGGCAAGAGAGAGCTTCCGAGCT	2248
QY	2221	GGGCCGTGCAAACTTCAAGGCAAGCTGTGAGAGCTTGTGATGTCGAGAGCAACAGACA	2280
Db	2249	GGGCCGTGCAAACTTCAAGGCAAGCTGTGAGAGCTTGTGATGTCGAGAGCAACAGACA	2308
QY	2281	TTGAGATCCCAAGCTTACACCTTCAATGTGACCTGGGACCCGCAACCTACAGGCTCG	2340
Db	2309	TTGAGATCCCAAGCTTACACCTTCAATGTGACCTGGGACCCGCAACCTACAGGCTCG	2368
QY	2341	TGCAGACTACACACCTTTGGACCTTCAGCAAGCCCTCAGACATGCAATGCCAAAGG	2400
Db	2369	TGCAGACTACACACCTTTGGACCTTCAGCAAGCCCTCAGACATGCAATGCCAAAGG	2428
QY	2401	TGTTACACATGAGGCTCAAACTCGGCAAGATATACAAATCCGACATCAGGCTGGCA	2460
Db	2429	TGTTACACATGAGGCTCAAACTCGGCAAGATATACAAATCCGACATCAGGCTGGCA	2488
QY	2461	CCATCTGCTGGGAATCTCTGTGAGAGTGGCCAAAGGCTGAAATCACTGCGGGGGAGC	2520
Db	2489	CCATCTGCTGGGAATCTCTGTGAGAGTGGCCAAAGGCTGAAATCACTGCGGGGGAGC	2548
QY	2521	ACCTTGGGGTTTGGCCAGGCAACGAGCGGCTGTGCAAGGCAATCTGGAGCGAGTGG	2580
Db	2549	ACCTTGGGGTTTGGCCAGGCAACGAGCGGCTGTGCAAGGCAATCTGGAGCGAGTGG	2608
QY	2581	TGATGGGCCCCACACCCCAACAGACAGTGGCTTGGAGAGCTGTGATGAGATGGCAGCT	2640
Db	2609	TGATGGGCCCCACACCCCAACAGACAGTGGCTTGGAGAGCTGTGATGAGATGGCAGCT	2668
QY	2641	ACTGGGTCAATGACAGAGGCTGCCCTGCTCACTCAGCCAGGCGCTCACCTATCC	2700
Db	2669	ACTGGGTCAATGACAGAGGCTGCCCTGCTCACTCAGCCAGGCGCTCACCTATCC	2728
QY	2701	CGACATACACACACCCCAACAGCTGTGCTGCTCCAAAGTGGGCCAGGTGGCCACAG	2760
Db	2729	TGACATACACACACCCCAACAGCTGTGCTGCTCCAAAGTGGGCCAGGTGGCCACAG	2788
QY	2761	AAGAGCTTAGAGACAGAGGCTGGAGGCTGTGCCAGGCTTCAGAGTACAGCAAGTGA	2820
Db	2789	AAGAGCTTAGAGACAGAGGCTGGAGGCTGTGCCAGGCTTCAGAGTACAGCAAGTGA	2848
QY	2821	AGTTACACCAAGCCCAACATTCCTGAGAGTCTTGAAGAGTTCCTGCTCCGCGGTGT	2880
Db	2849	AGTTACACCAAGCCCAACATTCCTGAGAGTCTTGAAGAGTTCCTGCTCCGCGGTGT	2908
QY	2881	CTGCTGGCTTCTGCTTCCAGCTCCCATTTCTGAAGGCCAGGTTCTACTCCATCAGCT	2940
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NUMBER OF SEQ. ID NOS: 97222
SOFTWARE: patentin version 3.2
SEQ ID NO: 37684
LENGTH: 3985
TYPE: DNA
ORGANISM: Homo sapiens
US-09-724-676-37684

Query Match 70.1%; Score 2906; DB 6; Length 3985;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 3356; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

QY 1 CCGCTTTAAATCTCGGCGCCCTTTGATGAGGGAGTGGGAGTGTAGACAGTCCG 60
DB |||||||
QY 29 CCGCTTTAAATCTCGGCGCCCTTTGATGAGGGAGTGGGAGTGTAGACAGTCCG 88
DB |||||||
QY 61 AAGTTCTCAAGGACAGAGTCTCTCTGTTGACTGTCTTACCCGGGAGGAGTGC 120
DB |||||||
QY 89 AAGTTCTCAAGGACAGAGTCTCTCTGTTGACTGTCTTACCCGGGAGGAGTGC 148
DB |||||||
QY 121 ACCGAGCTGCAAGCCCGACAGTGAAGAACATGTGAGTCAATTCAGATAGTCA 180
DB |||||||
QY 149 ACCGAGCTGCAAGCCCGACAGTGAAGAACATGTGAGTCAATTCAGATAGTCA 208
DB |||||||
QY 181 GAGACTGCTTTGTAAGGATAGAGATGAGTCTCTGTAATTTCTGTCAGAGCA 240
DB |||||||
QY 209 GTGACCTGCTTTGTAAGGATAGAGATGAGTCTCTGTAATTTCTGTCAGAGCA 268
DB |||||||
QY 241 AATTCACCAAGTATGCAATGAATGGGAAAAAGACATCAACAGTGTGAGAAAGCC 300
DB |||||||
QY 269 AATTCACCAAGTATGCAATGAATGGGAAAAAGACATCAACAGTGTGAGAAAGCC 328
DB |||||||
QY 301 CCGTGTCCACCTCCAGTCCAGTGAACAGAGTACCTTCAATGATCAACCTCAGCAAGC 360
DB |||||||
QY 329 CCGTGTCCACCTCCAGTCCAGTGAACAGAGTACCTTCAATGATCAACCTCAGCAAGC 388
DB |||||||
QY 361 AGCAGATGATGCCCGGAGCCCTCTGTGAGAGCGGGAAGAGTCTCCAGATCTG 420
DB |||||||
QY 389 AGCAGATGATGCCCGGAGCCCTCTGTGAGAGCGGGAAGAGTCTCCAGATCTG 448
DB |||||||
QY 421 TCAGAGTGAATGACACCCATTTCTCTCCCGACAGGATGTGAGATCAAAAATCTGGGCA 480
DB |||||||
QY 449 TCAGAGTGAATGACACCCATTTCTCTCCCGACAGGATGTGAGATCAAAAATCTGGGCA 508
DB |||||||
QY 481 GCGGGATGATTTCCAAAGACACTTCACATTAAGGCAAGGATTTTAACTGAGGT 540
DB |||||||
QY 509 GCGGGATGATTTCCAAAGACACTTCACATTAAGGCAAGGATTTTAACTGAGGT 568
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QY 541 CCAATCTTGCCTGGGGTCCATTATGATCCAAAAGTTTGACAGAGGACCCAGGACA 600
DB |||||||
QY 569 CCAATCTTGCCTGGGGTCCATTATGATCCAAAAGTTTGACAGAGGACCCAGGACA 628
DB |||||||
QY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTTAACCTATCGAATTTGTCAACCAATATTAG 660
DB |||||||
QY 629 AGCCTACCCCTCCAGATGAGCTTCTACCTTAACCTATCGAATTTGTCAACCAATATTAG 688
DB |||||||
QY 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCGGCGAGGAGTGAAGCGGTAAACAAG 720
DB |||||||
QY 689 GCTCCTTCAAGAGGCAAAATAGAGAACATCGGCGAGGAGTGAAGCGGTAAACAAG 748
DB |||||||
QY 721 AGATAGAAACACAGAACTTACCAATGAGAGGAGATGAGTCAATCTTCCACCAAGC 780
DB |||||||
QY 749 AGATAGAAACACAGAACTTACCAATGAGAGGAGATGAGTCAATCTTCCACCAAGC 808
DB |||||||
QY 781 AGGCTTGGCGCAATGCCCAAGCTGCAATGGAGAGATCCAGTGTCCAACTGAGGTCT 840
DB |||||||
QY 809 AGGCTTGGCGCAATGCCCAAGCTGCAATGGAGAGATCCAGTGTCCAACTGAGGTCT 868
DB |||||||
QY 841 TCGATGCGCGCAAGCTTTCACAGTCCCGGGAATGTTGAACATGTGAGAGACAGTGC 900
DB |||||||
QY 869 TCGATGCGCGCAAGCTTTCACAGTCCCGGGAATGTTGAACATGTGAGAGACAGTGC 928
DB |||||||
QY 901 GTTACTCCACCAACATATGCAATGAGTTCAGGTCGACCTGTTCCCGAGCGAGTG 960
DB |||||||

DB |||||||
QY 929 GTTACTCCACCAACATGCAATGAGTTCAGGTCGACCTGATCCAGGTCGAGCGAGTG 988
DB |||||||
QY 961 ATGGCAAGCAGCACTTCGCGGTGTGAATGCTAGCTCAATCCGCTATGCTGGCTACCA 1020
DB |||||||
QY 989 ATGGCAAGCAGCACTTCGCGGTGTGAATGCTAGCTCAATCCGCTATGCTGGCTACCA 1048
DB |||||||
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DB |||||||
QY 1049 TGGCAGATGCGAGATGAGAGGAGCCCTGCAACCTGTAATTCAGTCACTAGCTGTGATCG 1108
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QY 1109 ACCTGGCTGGAAGCCCAAGTACGCGCCCTTGATGTGTCCTGCTGTCAGAGCA 1168
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QY 1141 ATGGCCGTGACCCCTGAGACTCTTGGAATCCCACTGACCTTGCTGAGTGGGTCATG 1200
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QY 1169 ATGGCCGTGACCCCTGAGACTCTTGGAATCCCACTGACCTTGCTGAGTGGGTCATG 1228
DB |||||||
QY 1201 AACATCCCAATACGATGCTTTCGAGACTGAGTAAAGTGTACGCTGCTGCAAG 1260
DB |||||||
QY 1229 AACATCCCAATACGATGCTTTCGAGACTGAGTAAAGTGTACGCTGCTGCAAG 1288
DB |||||||
QY 1261 TGGCCCAATGCTCTTGAAGTGGGCGCTGGAAGTCCAGAGTGCCTTCAATGCT 1320
DB |||||||
QY 1289 TGGCCCAATGCTCTTGAAGTGGGCGCTGGAAGTCCAGAGTGCCTTCAATGCT 1348
DB |||||||
QY 1321 GGTACATGGGACAGAGTGGAGTGGGCGCTGGAAGTCCAGTGCCTGCAAGTGC 1380
DB |||||||
QY 1349 GGTACATGGGACAGAGTGGAGTGGGCGCTGGAAGTCCAGTGCCTGCAAGTGC 1408
DB |||||||
QY 1381 TGGAGGAAGTGGGACAGAGTGGGCGCTGGAAGTCCAGTGCCTGCTGCAAG 1440
DB |||||||
QY 1409 TGGAGGAAGTGGGACAGAGTGGGCGCTGGAAGTCCAGTGCCTGCTGCAAG 1468
DB |||||||
QY 1441 ACCAGGCTGTGTTGAATCAACATTTGCTGATTCATGTTTCAAGCAGATGTA 1500
DB |||||||
QY 1469 ACCAGGCTGTGTTGAATCAACATTTGCTGATTCATGTTTCAAGCAGATGTA 1528
DB |||||||
QY 1501 CCATCATGAGCAGCAGCTCGGCTGAGATCTTCAATGATGATGATGATGATGATGATGAT 1560
DB |||||||
QY 1529 CCATCATGAGCAGCAGCTCGGCTGAGATCTTCAATGATGATGATGATGATGATGATGAT 1588
DB |||||||
QY 1561 GGTCCCGTGGGGGCTGCCGCGAGACTGATGTTGGTGGTCCCTCCATGTTGGGACA 1620
DB |||||||
QY 1589 GGTCCCGTGGGGGCTGCCGCGAGACTGATGTTGGTGGTCCCTCCATGTTGGGACA 1648
DB |||||||
QY 1621 TCACCCCGTGTTCACAGAGAGTGTGATGATGATGATGATGATGATGATGATGATGAT 1680
DB |||||||
QY 1649 TCACCCCGTGTTCACAGAGAGTGTGATGATGATGATGATGATGATGATGATGATGAT 1708
DB |||||||
QY 1681 AGTGAAGGCTGGAAGAACCCATGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
DB |||||||
QY 1709 AGTGAAGGCTGGAAGAACCCATGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1768
DB |||||||
QY 1741 AGATTCATTTGAAGCTTGTGCAAGCTGTGCTTGTCTGTATGCTGATGCGCAAGA 1800
DB |||||||
QY 1769 AGATTCATTTGAAGCTTGTGCAAGCTGTGCTTGTCTGTATGCTGATGCGCAAGA 1828
DB |||||||
QY 1801 CAATGGCTGCCGAGTCAAGTCAACATCTCTTGGCAGAGAGAGAGAGAGAGAGAGAGAG 1860
DB |||||||
QY 1829 CAATGGCTGCCGAGTCAAGTCAACATCTCTTGGCAGAGAGAGAGAGAGAGAGAGAGAG 1888
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DB |||||||
QY 1889 CGGTGGCTGGGAGCTGGGGGCTTATTGAGCTGTGCTTCAACCCCAAGGTTGCTGCA 1948
DB |||||||
QY 1921 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
DB |||||||
QY 1949 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2008
DB |||||||
QY 1981 CGTTTGGCAATGAGAGCTGCTGGAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
DB |||||||

Db 2009 CTTTTGGCAATGAGAGATCCCTGGCAATGAGAGAACTGAAATGCTCTTCATGC 2068
 QY 2041 TGAAGAGCTCAACAACAATTCAGTACGCTGTTGGCTGGGCTCCAGCATGTACC 2100
 Db 2069 TGAAGAGCTCAACAACAATTCAGTACGCTGTTGGCTGGGCTCCAGCATGTACC 2128
 QY 2101 CTCGGTTCGGCCCTTTCGTCATGACATTTGATCAGAACTGTCCACCTGGGGCTCTC 2160
 Db 2129 CTCGGTTCGGCCCTTTCGTCATGACATTTGATCAGAACTGTCCACCTGGGGCTCTC 2188
 QY 2161 ACCTACCCCGATGGAGAGGGGATGAGCTCAGTGGGAGAGAGAGCCCTTCGAGCT 2220
 Db 2189 ACCTACCCCGATGGAGAGGGGATGAGCTCAGTGGGAGAGAGAGCCCTTCGAGCT 2248
 QY 2221 GGGCCGTGCAAACTTCAAGGAGCCTGTGAGAGCTTGTGATGTCCGAGGCAAGAGCA 2280
 Db 2249 GGGCCGTGCAAACTTCAAGGAGCCTGTGAGAGCTTGTGATGTCCGAGGCAAGAGCA 2308
 QY 2281 TTCAATTCCTCCCAAGCTCTACACCTTCATGTGACCTGGGACCCGACCATACAGGCTCG 2340
 Db 2309 TTCAATTCCTCCCAAGCTCTACACCTTCATGTGACCTGGGACCCGACCATACAGGCTCG 2368
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 Db 2369 TGCAGAGCTCAAGCTTTGGACCTCAGCAAGCCCTCAGAGAGATGATGCCAAGACG 2428
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 Db 2429 TGTTCACCATGAGGCTCAATCTCGGCGAATCTACAAAGTCCGACATCCAGCCGTGCA 2488
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 QY 2581 TGGATGGCCCCACACCCCAACGAGAGTGGCCCTGTGAGAGCATCTGTGAGAGGAGTGG 2640
 Db 2609 TGGATGGCCCCACACCCCAACGAGAGTGGCCCTGTGAGAGCATCTGTGAGAGGAGTGG 2668
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 Db 2669 ACTGGGTCAGTGAAGAAGGCTGGCCCCCTGTCTCAGTACGAGGCCCCCTACCTACTCCC 2728
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 Db 2909 CTGTGCTTCCTGCTTTCCAGCTCCCAATTCTGAAGCCCAAGTTCCTACTCATCAGCT 2968
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QY 3121 ATCCCTCCCATCTCTGATCTCTATGCGGCTGTGGCACAGGATCGTCCCTCCGAGTT 3180
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 QY 3181 TCTGGCAGCAAGGAGCTCCATGATCCGACAGCAAGGAGTGGGGAGGCGGATGACCT 3240
 Db 3209 TCTGGCAGCAAGGAGCTCCATGATCTCCAGCACAGGAGTGGGGAGGCGGATGACCT 3268
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 Db 3269 TGTGTTTGGTCCGCGCCGACAGATGAGAGCACATCTACAGAGAGATGTGGAGA 3328
 QY 3301 TGGCCCCAAGAGGGGTGTCTGATGCGGTGACACACACCTTATTCGCTGCGCAAGC 3360
 Db 3329 TGGCCCCAAGAGGGGTGTCTGATGCGGTGACACACACCTTATTCGCTGCGCAAGC 3388
 QY 3361 CCAAG 3365
 Db 3389 CCAAG 3393
 RESULT 8
 US-09-724-676A-37684
 ; Sequence 37684, Application us/09724676A
 ; GENERAL INFORMATION:
 ; APPLICANT: Compugen LTD
 ; TITLE OF INVENTION: Variants of alternative splicing
 ; FILE REFERENCE: 129181.4 Compugen
 ; CURRENT APPLICATION NUMBER: US/09/724,676A
 ; CURRENT FILING DATE: 2000-11-28
 ; NUMBER OF SEQ ID NOS: 97222
 ; SOFTWARE: Patentin version 3.2
 ; SEQ ID NO 37684
 ; LENGTH: 3985
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-09-724-676A-37684
 Query Match 70.1%; Score 2906; DB 6; Length 3985;
 Best Local Similarity 99.7%; Pred. No. 0;
 Matches 3356; Conservative 0; Mismatches 9; Indels 0; Gaps 0;
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 Db 29 CTGCTTAAATCTCTGGCCACCTTTGATGAGGGAGTGGGCACTTTAGACAGTCCG 88
 QY 61 AAGTTCTAAGGACAGAGTCTTCTCTGTTGACTGTCTTACCCGCGGAGGCAGTGC 120
 Db 89 AAGTTCTAAGGACAGAGTCTTCTCTGTTGACTGTCTTACCCGCGGAGGCAGTGC 148
 QY 121 AGCCAGCTCAAGCCCAACAGTGAAGAACATGTAGTCAATCCAGTAAGTGAATAA 180
 Db 149 AGCCAGCTCAAGCCCAACAGTGAAGAACATGTAGTCAATCCAGTAAGTGAATAA 208
 QY 181 GTGACCTGCTTTGTAAGCCATAGAGATGCGCTGTCTTGGAAATTTCTGTTCAAGCA 240
 Db 209 GTGACCTGCTTTGTAAGCCATAGAGATGCGCTGTCTTGGAAATTTCTGTTCAAGCA 268
 QY 241 AATTCCACAGATGATGATGAAATGGGAAAGAACATCAACAAATGTGAGAAAGCC 300
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 QY 361 AGCAAAATGATCCCGCAGCCCTCTGTGAGAGCGGAAAGAGTCTTCAGAAATCTGTG 420
 Db 389 AGCAAAATGATCCCGCAGCCCTCTGTGAGAGCGGAAAGAGTCTTCAGAAATCTGTG 448
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Qy 481 GGGGATGACTTTCCAGACACATTCACCATTAAGGCCAAGGATTTAACTTGAGGT 540
Db 509 GCGGGATGACTTTCCAAAGACACACTTCACCATTAAGGCCAAGGATTTAACTTGAGGT 568
Qy 541 CCAAACTCTGGGGGTCATATGATGATCCAAAAGTTTGACAGAGAGACCAGAGACA 600
Db 569 CCAAACTCTGGGGGTCATATGATGATCCAAAAGTTTGACAGAGAGACCAGAGACA 628
Qy 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCAACCAATATTAG 660
Db 629 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCAACCAATATTAG 688
Qy 661 GCTCTCTTCAAGAGCAAAAATAGAGAACATGTGGCCAGGGTGGAAAGCGGTAAAGAG 720
Db 689 GCTCTCTTCAAGAGCAAAAATAGAGAACATGTGGCCAGGGTGGAAAGCGGTAAAGAG 748
Qy 721 AGATAGAAACACAGAGAACCTTACCACTGACGGGAGATGAGCTCATCTTGCCACCAAGC 780
Db 749 AGATAGAAACACAGAGAACCTTACCACTGACGGGAGATGAGCTCATCTTGCCACCAAGC 808
Qy 781 AGGCTTGCGCAATGCCACAGCTGATGGAGATGCAAGTGTCAACCTTGACAGTCT 840
Db 809 AGGCTTGCGCAATGCCACAGCTGATGGAGATGCAAGTGTCAACCTTGACAGTCT 868
Qy 841 TCGATGCGCCGACCTGTTTCCAGTCCCGGGAATGTTTGACACATCTGACAGACGTG 900
Db 869 TCGATGCGCCGACCTGTTTCCAGTCCCGGGAATGTTTGACACATCTGACAGACGTG 928
Qy 901 GTTACTCCACCAACATGAGACATCAGTGGGCAATCACCCTGTTTCCCGACGAGAGTG 960
Db 929 GTTACTCCACCAACATGAGACATCAGTGGGCAATCACCCTGTTTCCCGACGAGAGTG 988
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Db 1109 ACCTGGGCTGGAAAGCCCAAGTACGGCCGCTTGCATGTGTGTCCTGCTGCTGAGGCA 1168
Qy 1141 ATGGCCGTGACCTGAGCTCTTGAATTCACCTGACCTTGTGTGCTGAGAGTGGCTG 1200
Db 1169 ATGGCCGTGACCTGAGCTCTTGAATTCACCTGACCTTGTGTGCTGAGAGTGGCTG 1228
Qy 1201 AACATCCCAATATGAGTGGTGGGAGCTGAGCTAAAGTGGTACGGCTGCTGCTGAG 1260
Db 1229 AACATCCCAATATGAGTGGTGGGAGCTGAGCTAAAGTGGTACGGCTGCTGCTGAG 1288
Qy 1261 TGGCCAAATGCTCTTGAGGTGGGCGCTGAGATTCCAGGGTGGCCCTTCAATGGCT 1320
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Db 1349 GGTACATGGGACAGAGATGAGATCCGGGACCTTGTGAGCTGCCAGCTACCAATTC 1408
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Db 1409 TGGAGAGATGGGACAGAGATGGGCTGGAAAGCAGCAAGCTGGCTGGCTGGAGAG 1468
Qy 1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGATCATACTTTTCAAGAGCAAGATGTA 1500
Db 1469 ACCAGGCTGTGTTGAGATCAACATTTGCTGATCATACTTTTCAAGAGCAAGATGTA 1528
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Qy 1561 GGTCCCGTGGGGGCTCCCGGACAGATGATTTGGTGTGCTCCCTCCATGCTTGGAGCA 1620
Db 1589 GGTCCCGTGGGGGCTCCCGGACAGATGATTTGGTGTGCTCCCTCCATGCTTGGAGCA 1648
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Db 1709 AGGTAGAGGCTGGAAACCCATGCTGTGGAGAGAGACAGAAACCGGAGAACCAAGAGAG 1768
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Db 1769 AGATTCATGTAAGTCTTGGTCAAAAGCTGTGCTTGTGCTGTATGCTGATGCGCAAGA 1828
Qy 1801 CAATGGCTCCCGAGCTCAGAGTCAACATCTCTTTGGGACAGAGACAGAAATCAGAG 1860
Db 1829 CAATGGCTCCCGAGCTCAGAGTCAACATCTCTTTGGGACAGAGACAGAAATCAGAG 1888
Qy 1861 CGCTGGCTGGAGCTGGGGGCTTATCAGTGTGCTGCTTCAACCCAGGTTGCTGCA 1920
Db 1889 CGCTGGCTGGAGCTGGGGGCTTATCAGTGTGCTGCTTCAACCCAGGTTGCTGCA 1948
Qy 1921 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAAAGGCTGCTGTTGTGTGACAGTA 1980
Db 1949 TGGATTAAGTACAGGCTGAGCTGCTGAGAGAGAAAGGCTGCTGTTGTGTGACAGTA 2008
Qy 1981 CTTTTGGCAATGAGACATGCTGCGCAATGAGAGAAATGAGAAATCTGCTTTCATGC 2040
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Db 2069 TGAAGAGCTCAACAACAAATTCAGTACGCTGTTTGGCTGGCTGCGCATGATACC 2128
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Db 2129 CTCGGTGTGCGCTTGTGCTATGATGATGATGATGATGATGATGATGATGATGATG 2188
Qy 2161 AGCTACCCCGATGGGAGAGAGGATGAGTACGTGAGGAGAGAGAGAGAGAGAGAG 2220
Db 2189 AGCTACCCCGATGGGAGAGAGGATGAGTACGTGAGGAGAGAGAGAGAGAGAGAG 2248
Qy 2221 GGGCGGTGCAAACTTCAAGGAGAGCTGTGAGAGCTTTGATGCTGGAGCAAAAGCACA 2280
Db 2249 GGGCGGTGCAAACTTCAAGGAGAGAGCTGTGAGAGCTTTGATGCTGGAGCAAAAGCACA 2308
Qy 2281 TTCAGATCCCAAGCTCTACACCTCCATGTGATGATGATGATGATGATGATGATGATG 2340
Db 2309 TTCAGATCCCAAGCTCTACACCTCCATGTGATGATGATGATGATGATGATGATGATG 2368
Qy 2341 TGCAGACACACAGCTTTGGAGCTCAGCAAGCCCTGACAGCATGATGATGATGATG 2400
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Qy 2401 TGTTCACATGAGAGCTCAATCTGCGAGAAATCTCAAAAGTCCGACATCCAGCTGACA 2460
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Qy 2461 CCATCTGTGGAATCTCTGTGAGATGCGCAAGGCTGAACTACTGCTGGGGGAGAC 2520
Db 2489 CCATCTGTGGAATCTCTGTGAGATGCGCAAGGCTGAACTACTGCTGGGGGAGAC 2548
Qy 2521 ACCTTGGGGTTTCCAGGCAACAGCGGCTGTGCTCAAGGCAATCTGAGAGAGTGG 2580
Db 2549 ACCTTGGGGTTTCCAGGCAACAGCGGCTGTGCTCAAGGCAATCTGAGAGAGTGG 2608
Qy 2581 TGGATGGCCCAACACCCACAGACAGTGGCTGAGAGAGCTGATGAGTGGACGCT 2640
Db 2609 TGGATGGCCCAACACCCACAGACAGTGGCTGAGAGAGCTGATGAGTGGACGCT 2668

QY	2641	ACTGGGTCAGTACAAAGAGGCTGGCCCCCGTCACCTCAGCCAGGCGCTCACCCTACTCCC	2700
Db	2665	ACTGGGTCAGTACAAAGAGGCTGGCCCCCGTCACCTCAGCCAGGCGCGCTCACCCTACTCCC	2728
QY	2701	CGGACATCAGCACACACCCCAACCCAGCTGCTGCTCCAAAAGCTGGCGCCAGGTGGCCATACG	2760
Db	2729	TGGACATCAGCACACACCCCAACCCAGCTGCTGCTCCAAAAGCTGGCGCCAGGTGGCCATACG	2788
QY	2761	AAGACCTGAGAGAGACAGAGGCTGGAGGCGCTGTGGCAGGCCCTCAGAGTACAGCAGTGGGA	2820
Db	2789	AAGACCTGAGAGAGAGAGGCTGGAGGCGCGTGTGGCAGGCCCTCAGAGTACAGCAGTGGGA	2848
QY	2821	AGTTACCAACAGGCCCAACATCTCCGAGAGTGCCTAAGAGATTCGCCGTCCGCGGTGT	2880
Db	2849	AGTTACCAACAGGCCCAACATCTCCGAGAGTGCCTAAGAGATTCGCCGTCCGCGGTGT	2908
QY	2881	CTGCTGGCTTCCTGCTTTCCTCCAGCTCCCATTTCTGAAGCCCAAGTTCATCTACATCAGCT	2940
Db	2909	CTGCTGGCTTCCTGCTTTCCTCCAGCTCCCATTTCTGAAGCCCAAGTTCATCTACATCAGCT	2968
QY	2941	CCTCCCGGGATCACAGCCCCACGAGATCCACCTGACTGTGGCGTGTCACTACACACA	3000
Db	2969	CCTCCCGGGATCACAGCCCCACGAGATCCACCTGACTGTGGCGTGTCACTACACACA	3028
QY	3001	CCGAGAGTGGCCAGGGTCCCTCAGCAGAGGTGTCTGCAGCAGATGCTCAACAGCTGA	3060
Db	3029	CCGAGAGTGGCCAGGGTCCCTCAGCAGAGGTGTCTGCAGCAGATGCTCAACAGCTGA	3088
QY	3061	AGCCCCAAGACCCAGTCCCTCGCTTGTGGGAAATCCAGCGCCCTTCACACTCCCGCAGG	3120
Db	3089	AGCCCCAAGACCCAGTCCCTCGCTTGTGGGAAATCCAGCGCGCTTCACACTCCCGCAGG	3148
QY	3121	ATCCCTCCCATCCTTGCATCTCATATCGGGGCTTGGCAGAGCATGCTGCGCTTCCGCGATT	3180
Db	3149	ATCCCTCCCATCCTTGCATCTCATATCGGGGCTTGGCAGAGCATGCGCGCTTCCGCGATT	3208
QY	3181	TTCTGGCAGCAAGCGCTCCATGAGTCCCGACACAAAGGAGTGGCGGAGGCGCGATGACT	3240
Db	3209	TTCTGGCAGCAAGCGCTCCATGAGTCCCGACACAAAGGAGTGGCGGAGGCGCGATGACT	3268
QY	3241	TGTGTTTGGGTGCGCGCGCCAGATGAGAGACACATCTACACAGAGAGATGCTGGAGA	3300
Db	3269	TGTGTTTGGGTGCGCGCGCCAGATGAGAGACACATCTACACAGAGAGATGCTGGAGA	3328
QY	3301	TGGCCCAAGAAAGGGGTGCTGCAATGCGGTGCACACAGCCTATTCCGCTGCTTGGCAAGC	3360
Db	3329	TGGCCCAAGAAAGGGGTGCTGCAATGCGGTGCACACAGCCTATTCCGCGCTGCTTGGCAAGC	3388
QY	3361	CCAG 3365	
Db	3389	CCAG 3393	

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RESULT 9
US-60-443-566-292
: Sequence 292. Application US/60443566
: GENERAL INFORMATION:
: APPLICANT: CARCILL, Michele
: APPLICANT: BEGOVICH, Ann
: TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
: FILE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
: FILE REFERENCE: C0001447
: CURRENT APPLICATION NUMBER: US/60/443,566
: CURRENT FILING DATE: 2003-01-30
: NUMBER OF SEQ ID NOS: 25102
: SOFTWARE: FastSeq for Windows Version 4.0
: SEQ ID NO 292
: LENGTH: 4131
:
: TYPE: DNA
: ORGANISM: Homo sapiens
US-60-443-566-292

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Query Match 66.8%; Score 2769; DB 9; Length 4131

Best Local Similarity 99.48; Pred. No. 0;
Matches 4109; Conservative 0; Mismatches 22; Indels 2; Gaps 2;

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Qy	73	CACAGGTCTCTTCGTGGTTTGACTGTCTCTTACCCCGGGGAGCGAGTGCACGACAGTCCAA	132
Db	61	CACAGTCTCTTCTTGTTTGACTGTCTCTTACCCCGGGGAGCGAGTGCACGACAGTCCAA	120
Qy	133	GGCCCACTGGAAGACATCTGAGTCAAATTCAGATTAAGTACATTAAGTACCTGCTTT	192
Db	121	GGCCCACTGGAAGACATCTGAGTCAAATTCAGATTAAGTACATTAAGTACCTGCTTT	180
Qy	193	GTAAGCCATAGAGATGAGCTGTCTCTTGGAAATTTCTGTTCAAGCAAAATTCACAGT	252
Db	181	GTAAGCCATAGAGATGAGCTGTCTCTTGGAAATTTCTGTTCAAGCAAAATTCACAGT	240
Qy	253	ATGCATATGAATGGGAAAAAAGACATCAACAACTGTGGAAAGCCCTGTGCCACT	312
Db	241	ATGCATATGAATGGGAAAAAAGACATCAACAACTGTGGAAAGCCCTGTGCCACT	300
Qy	313	CCAGTCCAGTGCACAGAGATACCTTCAGTATCAACCTCAGACACACACATAGAT	372
Db	301	CCAGTCCAGTGCACAGAGATACCTTCAGTATCAACCTCAGACACACACATAGAT	360
Qy	373	CCCCCAGCCCTCGTGTGAGAGCGGGAAAGAGTCCAGAAATCTCTGTCAAGCTGGATG	432
Db	361	CCCCCAGCCCTCGTGTGAGAGCGGGAAAGAGTCCAGAAATCTCTGTCAAGCTGGATG	420
Qy	433	CAACCCCAATTGTCCTCCCGCAGCGATGTGAGATCAAAAACCTGGGAGCGGATCACTT	492
Db	421	CAACCCCAATTGTCCTCCCGCAGCGATGTGAGATCAAAAACCTGGGAGCGGATCACTT	480
Qy	493	TCCAGACACACTTCACATTAAGGCCAAAGGATTTTAACCTCAGGTCCAAATCTTGGC	552
Db	481	TCCAGACACACTTCACATTAAGGCCAAAGGATTTTAACCTCAGGTCCAAATCTTGGC	540
Qy	553	TGGGGTCCATTATGACTCCCAAAAGTTTGACAGAGAGCCAGGAGCAAGCCATCCCTC	612
Db	541	TGGGGTCCATTATGACTCCCAAAAGTTTGACAGAGAGCCAGGAGCAAGCCATCCCTC	600
Qy	613	CAGATGACCTCTACCTCAAGCTATCGAATTTGTCAACCAATATTACGGCTCCTTCAAG	672
Db	601	CAGATGACCTCTCTCAAGCTATCGAATTTGTCAACCAATATTACGGCTCCTTCAAG	660
Qy	673	AGGCAAAAATAGAGAGAACATCTGGCCAGGGTGGAAAGCGGTAAACAAAGAGATTGAACAA	732
Db	661	AGGCAAAAATAGAGAGAACATCTGGCCAGGGTGGAAAGCGGTAAACAAAGAGATTGAACAA	720
Qy	733	CAGAGACCTACCAACTGACGGGAGATGAGTCAATCTTGGCCACCAAGAGCGCTGGCGA	792
Db	721	CAGAGACCTACCAACTGACGGGAGATGAGTCAATCTTGGCCACCAAGAGCGCTGGCGA	780
Qy	793	ATGGCCCCAGGTGCAATTGGGAGATCCAGTGGTCAACCGACGAGGCTTCGATGGCCGCA	852
Db	781	ATGGCCCCAGGTGCAATTGGGAGATCCAGTGGTCAACCGACGAGGCTTCGATGGCCGCA	840
Qy	853	GCTGTCCACTGCCCCGGGAAATGTTTGAACACATCTGCAGACAGCTGCGTTACTCCACA	912
Db	841	GCTGTCCACTGCCCCGGGAAATGTTTGAACACATCTGCAGACAGCTGCTTACTCCACA	900
Qy	913	ACAATGGCAACATAGGTGGGCCATCAACGCTGTTCCCCAGGGAGATGATGGCAGACAG	972
Db	901	ACAATGGCAACATAGGTGGGCCATCAACGCTGTTCCCCAGGGAGATGATGGCAGACAG	960
Qy	973	ACTTCCGGGTGTGGAAATGCTCAGCTCATCCGCTATCTGGCTACAGATGCAGATGGCA	1032
Db	961	ACTTCCGGGTGTGGAAATGCTCAGCTCATCCGCTATCTGGCTACAGATGGCAATGGCA	1020
Qy	1033	GCATCAAGGGGACCTGCGCAAGCTGAATTCACTACGTGTGCAATGCACCTGGGCTGGA	1092

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Db 1081 AGCCCAAGTACGGCGCTTGGATGTGTGTCCTCCCTGGTCCGACGGCCCAATGGCGCTGACC 1140
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Db 1141 CTGAGCTCTTCGAAATCCCACTGATCTGTGCTTGGAGTGGCCATGGAATCCCAAT 1200
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Db 1201 ACGAGTGGTTTCGGAACTGGAGCTAAAGTGTAGCGCCCTGCTCGACGTGGCCCAATGTC 1260
Qy 1273 TGTCTTGGAGTGGCGGCTGGAGTTCCTCAGGGTGGCCCTTCATAGGCTGTGATGGGCA 1332
Db 1261 TGTCTTGGAGTGGCGGCTGGAGTTCCTCAGGGTGGCCCTTCATAGGCTGTGATGGGCA 1320
Qy 1333 CAGAGTCCGAGTCCGGGACTTGTGACGTCAGCGCTACAACTCCTGAGAGAAATGTC 1392
Db 1321 CAGAGTCCGAGTCCGGGACTTGTGACGTCAGCGCTACAACTCCTGAGAGAAATGTC 1380
Qy 1393 GCAGAGAAATGGCGCTGGAAAGCAGCAAGCTGGCTGCTGTGAAAGACCGAGCTGTG 1452
Db 1381 GCAGAGAAATGGCGCTGGAAAGCAGCAAGCTGGCTGCTGTGAAAGACCGAGCTGTG 1440
Qy 1453 TTGAGATCAATGTCTGTGTATCCATAGTTTTCAGAAAGCAATGTACCATCATGTGACC 1512
Db 1441 TTGAGATCAATGTCTGTGTATCCATAGTTTTCAGAAAGCAATGTACCATCATGTGACC 1500
Qy 1513 ACCACTGGCTGACGAATCTTCATGAAAGTACATGACGAATGATACCGGCTCCGCTGGG 1572
Db 1501 ACCACTGGCTGACGAATCTTCATGAAAGTACATGACGAATGATACCGGCTCCGCTGGG 1560
Qy 1573 GCTGCGCGGACAGCTGATTTGGCTGTGCTCCCATGTCTGAGACATCACCCGCTGT 1632
Db 1561 GCTGCGCGGACAGCTGATTTGGCTGTGCTCCCATGTCTGAGACATCACCCGCTGT 1620
Qy 1633 TTTCACGAGAAATGCTGACATACGTCCTGTCCTTCTACTACTATACGATAGAGGCT 1692
Db 1621 TTTCACGAGAAATGCTGACATACGTCCTGTCCTTCTACTACTATACGATAGAGGCT 1680
Qy 1693 GGAAGAACCATGTCTGGGACAGACGAGAGACGAGAACCCAGAGAAAGAGATTCATTTGA 1752
Db 1681 GGAAGAACCATGTCTGGGACAGACGAGAGACGAGAGAACCCAGAGAAAGAGATTCATTTGA 1740
Qy 1753 AAGTCTTGGTCAAAAGCTGTGCTCTTTGCTGTATGTGATGCGCAACATAGCGCTCC 1812
Db 1741 AAGTCTTGGTCAAAAGCTGTGCTCTTTGCTGTATGTGATGCGCAACATAGCGCTCC 1800
Qy 1813 GAGTCAGAGTACCACTCTCTTTGGAGACAGACGAGAAATCAAGAGCGCTGGGCTGGG 1872
Db 1801 GAGTCAGAGTACCACTCTCTTTGGAGACAGACGAGAAATCAAGAGCGCTGGGCTGGG 1860
Qy 1873 ACCTGGGGGCTTTATTCAGCTGTGCTTCAACCCCAAGCTTGTCTGATGATTAATGACA 1932
Db 1861 ACCTGGGGGCTTTATTCAGCTGTGCTTCAACCCCAAGCTTGTCTGATGATTAATGACA 1920
Qy 1933 GGTGAGCTGCTGTGAGAGAGAGAGGCTGTGTGTGTGATACCAATGCTTTGGCAATG 1992
Db 1921 GGTGAGCTGCTGTGAGAGAGAGAGGCTGTGTGTGTGATACCAATGCTTTGGCAATG 1980
Qy 1993 GAGACTGGCGTGGCAATGGAGAGAAATGCTGCTGATGATGTAAGAGCTCA 2052
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Db 2041 ACAACAAATTCAGTACCTGTGTGTGCTGCTGCTCCAGCATGATACCTGCTGTGCG 2100
Qy 2113 CCTTGTCTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2172
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Qy 2173 TGGAGAAAGGAGATGAGCTCACTGGGACAGAGAGACGCTTCCGACAGCTGGGCGGTGAAA 2232
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Qy 2233 CCTTCAAGGACGCTGTGAGAGCTTTGATGTTCGAGGCAAAACAGCATTTAGATCCCCA 2292
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Db 2701 CACCCCAACAGCTGCTGCTTCAAAAGCTGGCCAGGCTGGCCAGAGAAAGCTGTGAGA 2759
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Qy 2893 TGTCTTCCAGCTGCCCATTCGTAAGCCAGGTTCTACTCATCACTCCCTCCGGATC 2952
Db 2879 TGTCTTCCAGCTGCCCATTCGTAAGCCAGGTTCTACTCATCACTCCCTCCGGATC 2938
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Qy 3013 AGGCTCCCGTGGCAACAGGCTGTGAGAGGCTGTGACAGGCTGTGACAGGCTGTGACAGG 3072
Db 2999 AGGCTCCCGTGGCAACAGGCTGTGAGAGGCTGTGACAGGCTGTGACAGGCTGTGACAGG 3058
Qy 3073 CAGTGGCTCTTGTGGGAAATGAGGCTGTGACAGGCTGTGACAGGCTGTGACAGGCTGTGAC 3132
Db 3059 CAGTGGCTCTTGTGGGAAATGAGGCTGTGACAGGCTGTGACAGGCTGTGACAGGCTGTGAC 3118
Qy 3133 CTTCATCTCATGATGAGGCTGTGACAGGCTGTGACAGGCTGTGACAGGCTGTGACAGGCTGT 3192
Db 3119 CTTCATCTCATGATGAGGCTGTGACAGGCTGTGACAGGCTGTGACAGGCTGTGACAGGCTGT 3178
Qy 3193 GGTCTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3252
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Db	3239	GC	CGCCGCCCCAGATGAGGAGCCACATCTACACGAGAGAGATGCTGGAGATGCGCCAGAAAG	3298
QY	3313	GG	GCTCTCATGCGGTGCACACACCCCTATTTCCCGCTCGCTGGCAGGCCCAAGGCTCATG	3372
Db	3299	GG	GCTCTCATGCGGTGCACACACCCCTATTTCCCGCTCGCTGGCAGGCCCAAGGCTCATG	3358
QY	3373	TT	CAGACATCTCTGGGAGAGAGTGGCCAGCGAGGTGCTCGGTGTCTCCACAAAGAGC	3432
Db	3359	TT	CAGACATCTCTGGGAGAGAGTGGCCAGCGAGGTGCTCGGTGTCTCCACAAAGAGC	3418
QY	3433	CAG	GCACCTCTATGTTTGGCGGGATGTGCATATGGCCCGGGACGCGCCACACCTCGA	3492
Db	3419	CAG	GCACCTCTATGTTTGGCGGGATGTGCATATGGCCCGGGACGCGCCACACCTCGA	3478
QY	3493	AG	CACACTGTGTGGCTGCCAAGCTGAAATTTGAATAGACAGAGGTGAGAGCTATTTCTTC	3552
Db	3479	AG	CACACTGTGTGGCTGCCAAGCTGAAATTTGAATAGAGAGAGGTGAGAGCTATTTCTTC	3538
QY	3553	AG	CTCAAGAGCCACAACCGCTATTCACAGAAATTTCTTGGCTGTGATTTCTTCCACAGG	3612
Db	3539	AG	CTCAAGAGCCACAACCGCTATTCACAGAAATTTCTTGGCTGTGATTTCTTCCACAGG	3598
QY	3613	CG	AAGAGAGAGAGGTGGCGGTGCAGCCACGACCTGGAGATGTACAGCGCTCTGAGGC	3672
Db	3599	CG	AAGAGAGAGAGGTGGCGGTGCAGCCACGACCTGGAGATGTACAGCGCTCTGAGGC	3658
QY	3673	CT	ACAGAGGGGCTTAAAGCTGGCCGACACAGAAATTTAAGATGAGGACCGACCTCGATTAT	3732
Db	3659	CT	ACAGAGGGGCTTAAAGCTGGCCGACACAGAAATTTAAGATGAGGACCGACCTCGATTAT	3718
QY	3733	CT	GAGGTACAGGGCTGGGGAGATGGAGAAAGTGAATTCGCCAGCCTCAAGCTTAT	3792
Db	3719	CT	GAGGTACAGGGCTGGGGAGATGGAGAAAGTGAATTCGCCAGCCTCAAGCTTAT	3778
QY	3793	TT	CCCAAGGTTGTGCCCATCAAGCCCTTACTTGACTCTCTAACAGTAGCACCTGG	3852
Db	3779	TT	CCCAAGGTTGTGCCCATCAAGCCCTTACTTGACTCTCTAACAGTAGCACCTGG	3838
QY	3853	ATT	GATGGAGACCTCTCTCTCAAACTGGGGGCTCCCTGGTCCCTTGGAGACAATCTT	3912
Db	3839	ATT	GATGGAGACCTCTCTCTCTCAAACTGGGGGCTCCCTGGTCCCTTGGAGACAATCTT	3898
QY	3913	AA	ATGCCAGGCTGGCGAGTGGGTGAAGATGGAACCTTGCTGAGTGACCACTTCAA	3972
Db	3899	AA	ATGCCAGGCTGGCGAGTGGGTGAAGATGGAACCTTGCTGAGTGACCACTTCAA	3958
QY	3973	GT	GACACACAGAGAGGTCTCTCCACACAGCTGTATTAACGCGCTGTGACAGTTAT	4032
Db	3959	GT	GACACACAGAGAGGTCTCTCCACACAGCTGTATTAACGCGCTGTGACAGTTAT	4018
QY	4033	TAT	CCCTCTATTTAAAAAACTAACCCCACTGTTCCCATGGGCCACTTGGGTTC	4092
Db	4019	TAT	CCCTCTCTATTTAAAAAACTAACCCCACTGTTCCCATGGGCCACTTGGGTTC	4078
QY	4093	CT	GTATGATTTCCCTGATGAGATATTATTCATGATTCGATTTACTTTATC	4145
Db	4079	CT	GTATGATTTCCCTGATGAGATATTATTCATGATTCGATTTACTTTATC	4131
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: GENERAL INFORMATION:				
: APPLICANT: Comugen LTD				
: TITLE OF INVENTION: Variants of alternative splicing				
: FILE REFERENCE: 129181.4 Comugen				
: CURRENT APPLICATION NUMBER: US/09/724,676				
: CURRENT FILING DATE: 2000-11-28				
: NUMBER OF SEQ ID NOS: 97222				
: SOFTWARE: Patentin version 3.2				
SEQ ID NO 37686				

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Db	1049	CCAAATGGCCGTGACCTGAGCTCTTTCGAATCCCACTGCACCTTGCTTGAGGTGGCCA	1108	
QY	1198	TGGAAATCCCCAATAACGATGGTGTTCGGGAACCTGGAGCTTAAGTGAAGGCCCGCCTG	1257	
Db	1109	TGGAAATCCCCAATAACGATGGTGTTCGGGAACCTGGAGCTTAAGTGAAGGCCCGCCTG	1168	
QY	1258	CAGTGGCCACAATGCTGCTTTGAGGTGGGGGCGCTGGAGTTCACAGAGGCCCTTCATG	1317	
Db	1169	CAGTGGCCACAATGCTGCTTTGAGGTGGGGGCGCTGGAGTTCACAGAGGCCCTTCATG	1228	
QY	1318	GCTGTGACTGGGCACAGAGATCGGAGTCCGGACTTCTGTAGCTCCAGGCTCAACA	1377	
Db	1229	GCTGTGACTGGGCACAGAGATCGGAGTCCGGAGTCTGTGACCTCCAGGCTCAACA	1288	
QY	1378	TCCTGGAGAAATGGGACAGAGAATGGGGGCTGGAAAGCACAGCTGGGCTGCTGGA	1437	
Db	1289	TCCTGGAGAAATGGGACAGAGAATGGGGGCTGGAAAGCACAGCTGGGCTGCTGGA	1348	
QY	1438	AAGACCAGGCTGCTGATGATCAACATTGCTGTGATCCATAGTTTTCAGAACGAGATG	1497	
Db	1349	AAGACCAGGCTGCTGATGATCAACATTGCTGTGATCCATAGTTTTCAGAACGAGATG	1408	
QY	1498	TGACCATATGAGACACCACTCGGCTGGAGAAATCTTATGAATGATGCAAGATGAT	1557	
Db	1409	TGACCATATGAGACACCACTCGGCTGGAGAAATCTTATGAATGATGCAAGATGAT	1468	
QY	1558	ACCGGTCCTGTTGGGGGCTGCGCGGACAGACTGGATTGGCTGGTCCCTCCCATGTGGGA	1617	
Db	1469	ACCGGTCCTGTTGGGGGCTGCGCGGACAGACTGGATTGGCTGGTCCCTCCCATGTGGGA	1528	
QY	1618	GCATACCCCGCTGTTTACACAGAGATGTGAATCAGTACGTCTGTCCTTCCTTCTACTACT	1677	
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QY	1678	ATCAGGTGAGGCGCCGAAAAACCAATGCTGCGACAGAGAGAAAGCGAGACCAAAGAAA	1737	
Db	1589	ATCAGGTGAGGCGCCGAAAAACCAATGCTGCGACAGAGAGAAAGCGAGACCAAAGAAA	1648	
QY	1738	GAGAGATTCCATTGAAATCTTGTCAAAAGGTGTGCTTGTGCTGTATGTGATGGCA	1797	
Db	1649	GAGAGATTCCATTGAAATCTTGTGTCAAAAGGTGTGCTTGTGCTGTATGTGATGGCA	1708	
QY	1798	AGACAATGGCGTCCGAGTCAAGAGTCAACATCTCTTTGGCAGACAGACAGAAAAATCAG	1857	
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QY	1858	AGGGGCTGGGCTGGAGCTGGGGGCGCTTATTCACAGTGTGCTTAAACCCAGAAGTGTCT	1917	
Db	1769	AGGGGCTGGGCTGGAGCTGGGGGCGCTTATTCACAGTGTGCTTAAACCCAGAAGTGTCT	1828	
QY	1918	GCATGATTAATACAGGCTGAGTGTGCTGCGAGAGAGAAAGCGCTGTGGTGGTGGACA	1977	
Db	1829	GCATGATTAATACAGGCTGAGTGTGCTGCGAGAGAGAAAGCGCTGTGGTGGTGGACA	1888	
QY	1978	GTACGTTTGGCAATGAGAGACTGCGCTGGCAATGAGAGAAACCTGAAGAAATCGCTTTCA	2037	
Db	1889	GTACGTTTGGCAATGAGAGACTGCGCTGGCAATGAGAGAAACCTGAAGAAATCGCTTTCA	1948	
QY	2038	TGCTGAAAGAGCTCAACAACAATAATTCAGTAGTACGTGTGTGCTTGCGCTCGCCACAGCATGT	2097	
Db	1949	TGCTGAAAGAGCTCAACAACAATAATTCAGTAGTACGTGTGTGCTTGCGCTCGCCACAGCATGT	2008	

Db 3149 CCTTGCTTTGGTGGCCGCCCCAGATGAGACACATCTACAGAGAGATGCTGG 3208
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 QY 3358 AGCCCAAGCTCTATGTTAGAGACATCTGCGGAGCAGCTGCGGAGAGTGTGCTGGT 3417
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 Db 3569 CAGCGCTCTGAGGCGCTACAGAGAGGGGTTAAAGCTGCGGACAGAACTTAAGATGAG 3628
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 QY 3778 AGCCTCAAGCTTATTTCTCTCAACGCTTGTCCCATCAAGCCCTTACTTGAACCTCTAA 3837
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 QY 3898 TGGAGACAAATCTTAAATGAGCCAGGCGCTGCGAGAGTGGTGAAGATGAACTTGTCTG 3957
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 ; GENERAL INFORMATION:
 ; APPLICANT: Compugen LTD
 ; TITLE OF INVENTION: Variants of alternative splicing
 ; FILE REFERENCE: 129181.4 Compugen
 ; CURRENT APPLICATION NUMBER: US/09/724,676
 ; NUMBER OF SEQ ID NOS: 97222
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 37688
 ; LENGTH: 3867
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 US-09-724-676-37688
 Query Match 42.7%; Score 1769; DB 6; Length 3867;
 Best Local Similarity 99.68; Pred. No. 0;
 Matches 2219; Conservative 0; Mismatches 9; Indels 0; Gaps 0;
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 QY 3178 GTTTCGAGAGCAAGGCTTCCATGATCTCCAGACACAGGAGATGGGGAGGCGCCATCA 3237
 Db 3089 GTTTCGAGAGCAAGGCTTCCATGATCTCCAGACACAGGAGATGGGGAGGCGCCATCA 3148
 QY 3238 CCTGTGTTGGGTGCGCGCCCGCAGATGAGAGACACATCTTACAGAGAGAGATGCTGG 3297
 Db 3149 CCTGTGTTGGGTGCGCGCGCCCGCAGATGAGAGACACATCTTACAGAGAGAGATGCTGG 3208
 QY 3298 AGATGGCCAGAAAGGGGGGTGCTGATGGGCTGACACAGACCTATTCCTGCGCTGGCA 3357
 Db 3209 AGATGGCCAGAAAGGGGGGTGCTGATGGGCTGACACAGACCTATTCCTGCGCTGGCA 3268

QY 3358 AGCCCAAG 3365
 Db 3269 AGCCCAAG 3276

RESULT 13
 US-09-724-676A-37688
 ; Sequence 37688, Application US/09724676A
 ; GENERAL INFORMATION:
 ; APPLICANT: Comugen LTD
 ; TITLE OF INVENTION: Variants of alternative splicing
 ; FILE REFERENCE: 129181.4 Comugen
 ; CURRENT APPLICATION NUMBER: US/09/724.676A
 ; NUMBER OF SEQ ID NOS: 97222
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 37688
 ; LENGTH: 3867
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-09-724-676A-37688

Query Match 42.7%; Score 1769; DB 6; Length 3867;
 Best Local Similarity 99.6%; Pred. No. 0;
 Matches 2219; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

QY 1138 CCATATGGCCGTACCTGACCTCTTGAATCCACCTGACCTGTGCTTGAAGTGCGCA 1197
 Db 1049 CCATATGGCCGTACCTGACCTCTTGAATCCACCTGACCTGTGCTTGAAGTGCGCA 1108
 QY 1198 TGAACATCCCAATATACAGTGTGTCGGAACCTGAGCTTAAAGTGAAGCCCTGCGCTG 1257
 Db 1109 TGAACATCCCAATATACAGTGTGTCGGAACCTGAGCTTAAAGTGAAGCCCTGCGCTG 1168
 QY 1238 CAGTGGCCAAATGCTGCTTGAAGTGGCGGCTGAGATTCACAGGCTGCCCTTCAATG 1317
 Db 1169 CAGTGGCCAAATGCTGCTTGAAGTGGCGGCTGAGATTCACAGGCTGCCCTTCAATG 1228
 QY 1318 GCTGTACATGGGCAACAGATTCGAGATCCGAGACTTCTGACAGCTCAGAGCTACACA 1377
 Db 1229 GCTGTACATGGGCAACAGATTCGAGATCCGAGACTTCTGACAGCTCAGAGCTACACA 1288
 QY 1378 TCTGTGAGAGTGGGCGAGGAAATGGGCTGGAAGACGACAACTGACCTGCTGGA 1437
 Db 1289 TCTGTGAGAGTGGGCGAGGAAATGGGCTGGAAGACGACAACTGACCTGCTGGA 1348
 QY 1438 AAGACCAAGCTGTGCTTGAATCAATGCTGTGATCCATAGTTTTCAGAAAGCAATG 1497
 Db 1349 AAGACCAAGCTGTGCTTGAATCAATGCTGTGATCCATAGTTTTCAGAAAGCAATG 1408
 QY 1498 TGACCATGATGAGACACACACTGCGCTGCAAGATCCCTCATGAGTACATGCAAAATGAAT 1557
 Db 1409 TGACCATGATGAGACACACACTGCGCTGCAAGATCCCTCATGAGTACATGCAAAATGAAT 1468
 QY 1558 ACCGGTCCGTTGGGGGCTGCCCGGACAGACTGGAATTTGGTGGTCCCTCCATGCTGGGA 1617
 Db 1469 ACCGGTCCGTTGGGGGCTGCCCGGACAGACTGGAATTTGGTGGTCCCTCCATGCTGGGA 1528
 QY 1618 GCATCACCCCGGTGTTCCACAGAGATGCTGAACCTACGTCGTGCTGCTTCTACTACT 1677
 Db 1529 GCATCACCCCGGTGTTCCACAGAGATGCTGAACCTACGTCGTGCTGCTTCTACTACT 1588
 QY 1678 ATCAGTAGAGGCTTGAAAAACCATCTTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAA 1737
 Db 1589 ATCAGTAGAGGCTTGAAAAACCATCTTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAA 1648
 QY 1738 GAGGATTCATTTGAAGTCTTGTCAAGAGCTGTGCTTGTGCTGTATGCTATGCGCA 1797
 Db 1649 GAGGATTCATTTGAAGTCTTGTCAAGAGCTGTGCTTGTGCTGTATGCTATGCGCA 1708
 QY 1798 AGACATATGGGCTGCCGAGTGAAGTACCATCTCTTGTGAGAGAGAGAGAGAGAAATCAG 1857


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; SEQ ID NO 37687
; LENGTH: 3868
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-724-676A-37687

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Query Match	42.7%	Score 1769,	DB 6;	Length 3868;
Best Local Similarity	99.6%	Pred. No. 0;		
Matches 2219;	Conservative	0;	Mismatches	9;
			Indels	0;
			Gaps	0;

QY	1138	CAATGGCCCTGACCCCTGAGCTCTTCCAAATCCACCTGACCTTGTGCTGAGGTGGCA	1197
Db	1049	CCAAATGGCCGTGACCCCTGAGCTCTTCCAAATCCACCTGACCTTGTGCTGAGGTGGCA	1108
QY	1198	TGAAACATCCCAATACGAGAGGTTTGGGGAACTGGAGCTAAAGTGTAGCCCTGCTG	1257
Db	1109	TGGAACATCCCAATACGAGAGGTTTGGGGAACTGGAGCTAAAGTGTAGCCCTGCTG	1168
QY	1258	CAGTGGCCCAACATGCTCTTGAAGTGGGGCCCTGGAGTTCCCGGGGTGGCCCTTCATG	1317
Db	1169	CAGTGGCCCAACATGCTCTTGAAGTGGGGCCCTGGAGTTCCCGGGGTGGCCCTTCATG	1228
QY	1318	GCTGCTCATGGGCACAGAAATCGAGTCCGGGACTTCTGTGAGCTCACAGCGCTACACA	1377
Db	1229	GCTGCTCATGGGCACAGAAATCGAGTCCGGGACTTCTGTGAGCTCACAGCGCTACACA	1288
QY	1378	TCTTGAGAGAAAGTGGGCAGAGATGGGCGCTGGAAAGCACAAGCTGGCTCGCTGGGA	1437
Db	1289	TCTTGAGAGAAAGTGGGCAGAGATGGGCGCTGGAAAGCACAAGCTGGCTCGCTGGGA	1348
QY	1438	AAGACCAAGCTGTGCTTGAGATCAACATTGCTGTGATCCATAGTTTTCACAAACAGAAATG	1497
Db	1349	AAGACCAAGCTGTGCTTGAGATCAACATTGCTGTGATCCATAGTTTTCACAAACAGAAATG	1408
QY	1498	TGACCATCATGGAGCCACACACATCGCGCTGCAGAAATCTTCAATGAAGTACATGACAGATGAAT	1557
Db	1409	TGACCATCATGGAGCCACACACATCGCGCTGCAGAAATCTTCAATGAAGTACATGACAGATGAAT	1468
QY	1558	ACCGGTCCCGTGGGGGCTGCCCGGCAGACTGAAATTGGCGTGGCCCTCCCATCTGGGA	1617
Db	1469	ACCGGTCCCGTGGGGGCTGCCCGGCAGACTGAAATTGGCGTGGCCCTCCCATCTGGGA	1528
QY	1618	GCATCACCCCCGTGTTCACACAGAGATGCTGAATAGTCTGTGCCCTTCTTCTACTACT	1677
Db	1529	GCATCACCCCCGTGTTCACACAGAGATGCTGAATAGTCTGTGCCCTTCTTCTACTACT	1588
QY	1678	ATCAGTATAGGCGCTGGAACACCAATGCTGTGGAGAGACCAAGAGCGGAGAACCCAAAGAGAA	1737
Db	1589	ATCAGTATAGGCGCTGGAACACCAATGCTGTGGAGAGACCAAGAGCGGAGAACCCAAAGAGAA	1648
QY	1738	GAGAGATTCATGAAAGTCTTGATCAAAAGCTGTGCTCTTCCCTGATGCTGATGAGCGCA	1797
Db	1649	GAGAGATTCATGAAAGTCTTGATCAAAAGCTGTGCTCTTCCCTGATGCTGATGAGCGCA	1708
QY	1798	ACACATGGCGCTCCGAGTCAAGATCACCATCTCTTTGCGACAGAGACGAGAAATCAG	1857
Db	1709	ACACATGGCGCTCCGAGTCAAGATCACCATCTCTTTGCGACAGAGACGAGAAATCAG	1768
QY	1858	AGGCGCTGGCCCTGGAGCCTGGGGGGCTTATTAGCTGTGGCTTCAACCCCAAGTTGTCT	1917
Db	1769	AGGCGCTGGCCCTGGAGCCTGGGGGGCTTATTAGCTGTGGCTTCAACCCCAAGTTGTCT	1828
QY	1918	GCATGATTAAGTACAGGCTGAGCTGCTGCGAGAGAAAGGCTGCTGTGTGGTGGAGACA	1977
Db	1829	GCATGATTAAGTACAGGCTGAGCTGCTGCGAGAGAAAGGCTGCTGTGTGGTGGAGACA	1888
QY	1978	GTAGCTTGGGAATGGAGACACTGCGCTGGCAATGGAGAGAACTGAAGAAATCGCTCTTCA	2037
Db	1889	GTAGCTTGGGAATGGAGACACTGCGCTGGCAATGGAGAGAACTGAAGAAATCGCTCTTCA	1948
QY	2038	TGCTGAAAGACCTACACAAATTCAGATACGCTGTGTGGCTGGCGTCCAGCAATG	2097
Db	1949	TGCTGAAAGACCTACACAAATTCAGATACGCTGTGTGGCTGGCGTCCAGCAATG	2008

Qy	2098	AACTGCGTTCGCGCGCTTCTGCTATGACATTGATCAGAAAGCTGTCCCACTGGGGGCGCT	2157
Db	2009	ACCTCGGTTCTCGCGCTTTCCTATGTGACATTGATTCAGAAAGCTGTCCCACTGGGGGCGCT	2068
Qy	2158	CTCAGCTCAACCCGATGGGAGAGAGGGGATGTAGCTCACTGGGCGAGGAGAGCGCTTCGCCA	2217
Db	2069	CTCAGCTCAACCCGATGGGAGAGAGGGATGTAGCTCACTGGGCGAGGAGAGCGCTTCGCCA	2128
Qy	2218	GCTGGGCGCGTGCAAACCTTCAAGGCAAGCTGTGTAGAGCTTTTGATGTCCAGGCAAAACAGC	2277
Db	2129	GCTGGGCGCGTGCAAACCTTCAAGGCAAGCTGTGTAGAGCTTTTGATGTCCAGGCAAAACAGC	2188
Qy	2278	ACATTAGATTCGCCAAGGCTCAACACTCTCAATGTGAGCTCGGAGACCCGACACTCAAGCC	2337
Db	2189	ACATTAGATTCGCCAAGGCTCAACACTCTCAATGTGAGCTCGGAGACCCGACACTCAAGCC	2248
Qy	2338	TGCTGAGAGACTCACAGGCTTTGGAGCTCAGCAAAAGCCCTCAGCAGCAATGCTGTGCACAGA	2397
Db	2249	TGCTGAGAGACTCACAGGCTTTGGAGCTCAGCAAAAGCCCTCAGCAGCAATGCTGTGCACAGA	2308
Qy	2398	ACGTGTTCACCATGAGGCTCAAACTCTGGGAGATCTACAAAGTCCGAGATCCAGCCGTG	2457
Db	2309	ACGTGTTCACCATGAGGCTCAAACTCTGGGAGATCTACAAAGTCCGAGATCCAGCCGTG	2368
Qy	2458	CCACCATCTGTGTGAACTCTCCTGTAGAGATGGCCAGACGCTCGAACTACGTCGCGGGGG	2517
Db	2369	CCACCATCTGTGTGAACTCTCCTGTAGAGATGGCCAGACGCTCGAACTACGTCGCGGGGG	2428
Qy	2518	AGCACCTTGGGGGTTTGGCCCAAGCAACCAAGCCGCGCTGTGTCCAAAGGCACTCTGGAGCGAG	2577
Db	2429	AGCACCTTGGGGGTTTGGCCCAAGCAACCAAGCCGCGCTGTGTCCAAAGGCACTCTGGAGCGAG	2488
Qy	2578	TGGTGATGAGCCCAACAACCCACAGACAGTGTGGCTGGAGGACCTGGATAGAGTGTGCA	2637
Db	2489	TGGTGATGAGCCCAACAACCCACAGACAGTGTGGCTGGAGGACCTGGATAGAGTGTGCA	2548
Qy	2638	GCTACTGGGTAGTGACAAAGAGGCTGCCCCCTGCTCACTAGCCAGGCGCTCACTACT	2697
Db	2549	GCTACTGGGTAGTGACAAAGAGGCTGCCCCCTGCTCACTAGCCAGGCGCTCACTACT	2608
Qy	2698	CCCCGAGACTCACACACACCCCAACCAACCACTGCTGTCTCCAAAGCTGGGCCAGGTGGCCA	2757
Db	2609	TCTCTGACATCACCACACACCCCAACCAACCACTGCTGTCTCCAAAGCTGGGCCAGGTGGCCA	2668
Qy	2758	CAGAAAGAGCTTGAGACACAGAGGCTGTGAGGCCCTTGCCAGCCCTCAAGATACAGCAAGT	2817
Db	2669	CAGAAAGAGCTTGAGACACAGAGGCTGTGAGGCCCTTGCCAGCCCTCAAGATACAGCAAGT	2728
Qy	2818	GGAAGTTTACCACACAGGCCCACTTCCTGGAGGTGCTGAGAGACTTTCGGTCCCTGCGGG	2877
Db	2729	GGAAGTTTACCACACAGGCCCACTTCCTGGAGGTGCTGAGAGACTTTCGGTCCCTGCGGG	2788
Qy	2878	TGCTGCTGGCTTCTGCTTTTCCAGACTCCCAATCTCAAGCCCAAGGTTTACTTCCATCA	2937
Db	2789	TGCTGCTGGCTTCTGCTTTTCCAGACTCCCAATCTCAAGCCCAAGGTTTACTTCCATCA	2848
Qy	2938	GCTCTCTCCCGGATTCACAGGCCACAGGAGATTCACACTGACTGTGGCCGTGTACTTACC	2997
Db	2849	GCTCTCTCCCGGATTCACAGGCCACAGGAGATTCACACTGACTGTGGCCGTGTACTTACC	2908
Qy	2998	ACACCGAGATGTGCGAGGGTCCCTGTGCACACAGGTGTCTGAGACACTTGGCTCAACAGCC	3057
Db	2909	ACACCGAGATGTGCGAGGGTCCCTGTGCACACAGGTGTCTGAGACACTTGGCTCAACAGCC	2968
Qy	3058	TGAAGCCCCCAAGACCCAGTGGCCCTCTTTGTGTGCGGAATGCCAGCGCTTCCACTTCCCG	3117
Db	2969	TGAAGCCCCCAAGACCCAGTGGCCCTCTTTGTGTGCGGAATGCCAGCGCTTCCACTTCCCG	3028
Qy	3118	AGGATCCCTCCACTCTTGTGCATCTCATCGGGGCTGTGCACAGGCACTGTGGCCCTTCCGCA	3177
Db	3029	AGGATCCCTCCACTCTTGTGCATCTCATCGGGGCTGTGCACAGGCACTGTGGCCCTTCCGCA	3088

QY 3178 GTTCTGACAGCGGCTCCATGACTCCAGCACAAGGGAGTGGGGAGGCCGATGA 3237
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 Db 3089 GTTCTGACAGCGGCTCCATGACTCCAGCACAAGGGAGTGGGGAGGCCGATGA 3148
 QY 3238 CCTTGGTGTGGTGCCCGCCAGATGAGACCAATCTACAGAGAGATGCTGG 3297
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 Db 3149 CCTTGGTGTGGTGCCCGCCAGATGAGACCAATCTACAGAGAGATGCTGG 3208
 QY 3298 AGATGGCCAGAGGGGGTGCTGCATGGGCTGCACACAGCCTATTCCCGCTGCTGCA 3357
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 Db 3209 AGATGGCCAGAGGGGGTGCTGCATGGGCTGCACACAGCCTATTCCCGCTGCTGCA 3268
 QY 3358 AGCCCAAG 3365
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 Db 3269 AGCCCAAG 3276

Search completed: March 14, 2003, 16:11:33
 Job time : 974 secs

PD 09-JUN-1994.
XX 23-NOV-1993; 93WO-US11401.
XX 25-NOV-1992; 92US-0981344.
XX (UPI-) UNIV PITTSBURGH.
PI Billiar TR, Geller DA, Nussler AK, Simmons RL;
XX WPI: 1994-200273/24.
DR P-PSDB: AAR55764.
XX
XX cDNA clone encoding human inducible nitric oxide synthase - used
PT to prevent the hypotensive shock seen with sepsis.
XX
XX
PS Claim 23; Fig 1; 53pp; English.
XX
XX AA066914 is from human hepatocyte inducible nitric oxide synthase cDNA
CC clone PHINOS from lambda Zap II cDNA library. The original source
CC was induced human hepatocyte RNA. PHINOS cDNA plasmid is pref.
CC transformed in E. coli SOLR (ATCC 69126). The inventors claim a
CC clone with the cDNA sequence in AA066914 and a cDNA clone which
CC encodes AAR55764. The cloning and expression of a human tissue nitric
CC oxide synthase cDNA provides a source of the enzyme for therapeutic
CC purposes, for example to prevent the hypotensive shock seen with
CC sepsis.
XX
XX
SQ Sequence 4145 BP; 968 A; 1203 C; 1126 G; 848 T; 0 other:

Query Match 100.0%; Score 4145; DB 15; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CTGCTTTAAATCTCTCGGCCACCTTTGATGAGGGAGCTGGGAGTTCTAGACAGTCCG 60
DB 1 CTGCTTTAAATCTCTCGGCCACCTTTGATGAGGGAGCTGGGAGTTCTAGACAGTCCG 60
OY 61 AAGTTCTCAAGGACAGAGTCTCTCTGTTGACTGTCTTACCCCGGGAGGACAGTGC 120
DB 61 AAGTTCTCAAGGACAGAGTCTCTCTGTTGACTGTCTTACCCCGGGAGGAGTGC 120
OY 121 AGCCAGCTGCAAGCCCCACAGTGAAGAACATCTGACTCAATCCAGATAAGTACATAA 180
DB 121 AGCCAGCTGCAAGCCCCACAGTGAAGAACATCTGACTCAATCCAGATAAGTACATAA 180
OY 181 GTGACCTGCTTTGTAAGCATAGAGATGGCTGTCTTGAATAATTTCTGTTCAAGACA 240
DB 181 GTGACCTGCTTTGTAAGCATAGAGATGGCTGTCTTGAATAATTTCTGTTCAAGACA 240
OY 241 AATTCACACAGTATGATGATGAGGAAAAAAGACATCAACACATGTGGAGAAAGCC 300
DB 241 AATTCACACAGTATGATGATGAGGAAAAAAGACATCAACACATGTGGAGAAAGCC 300
OY 301 CCTGTGCCACCTCCAGTCCAGTGAACAGATGACCTTCAATACACACTCAGCAAGC 360
DB 301 CCTGTGCCACCTCCAGTCCAGTGAACAGATGACCTTCAATACACACTCAGCAAGC 360
OY 361 AGCAGATGAGTCCCGGACGCCCCCTGATGAGAGCGGAAAAAGCTCCAGAACTCTGG 420
DB 361 AGCAGATGAGTCCCGGACGCCCCCTGATGAGAGCGGAAAAAGCTCTCAAAATCTGG 420
OY 421 TCAGCTGGATGCAACCCCATTTGCTCCCAAGGATGTAGAGTCAAAAAGCTGGGGCA 480
DB 421 TCAGCTGGATGCAACCCCATTTGCTCCCAAGGATGTAGAGTCAAAAAGCTGGGGCA 480
OY 481 GCGGATGACTTTCCAAAGACACTTCAACATTAAGGCCAAAGGATTTTAACTGACGT 540
DB 481 GCGGATGACTTTCCAAAGACACTTCAACATTAAGGCCAAAGGATTTTAACTGACGT 540
OY 541 CCAATCTTGCTGGGCTCATATGATCCCAAAAGTTTACAGAGAGACCCAGGAGACA 600
DB 541 CCAATCTTGCTGGGCTCATATGATCCCAAAAGTTTACAGAGAGACCCAGGAGACA 600

OY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATCGAATTTGTCACCAATATTACG 660
DB 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATCGAATTTGTCACCAATATTACG 660
OY 661 GCTTCCTTCAAGAGGCAAAATAGAGAAATCTGGCCAGGGTGAAGCGGTAAACAAAG 720
DB 661 GCTTCCTTCAAGAGGCAAAATAGAGAAATCTGGCCAGGGTGAAGCGGTAAACAAAG 720
OY 721 AGATAGAAACACAGAGACTTACCAACTGACGGGAATGAGTCAATCTTCCGACCAAC 780
DB 721 AGATAGAAACACAGAGACTTACCAACTGACGGGAATGAGTCAATCTTCCGACCAAC 780
OY 781 AGGCTTGCCCAATGCCCCAGCTGATGAGAGATCCAGTGGTCAACCTGACAGTTC 840
DB 781 AGGCTTGCCCAATGCCCCAGCTGATGAGAGATCCAGTGGTCAACCTGACAGTTC 840
OY 841 TCGATGCCCGAGCTGTTCCACTGCCCCGGGAAATGTTGAACACATCTGCAGACAGTGC 900
DB 841 TCGATGCCCGAGCTGTTCCACTGCCCCGGGAAATGTTGAACACATCTGCAGACAGTGC 900
OY 901 GTTACTCCACCAACATGGAACATCAGTGGGSCATCAACCGTTCCCGCAGCGGAGTG 960
DB 901 GTTACTCCACCAACATGGAACATCAGTGGGSCATCAACCGTTCCCGCAGCGGAGTG 960
OY 961 ATGGCAAGCAGACTTCCGGGTGTGGAATGCTCAGCTCAATCCGCTATGCTGCTACACA 1020
DB 961 ATGGCAAGCAGACTTCCGGGTGTGGAATGCTCAGCTCAATCCGCTATGCTGCTACACA 1020
OY 1021 TGGCAGATGCGACATCAGAGGGGAGCCCTGCACTGGAATTCAGCTATCCGCTATGCT 1080
DB 1021 TGGCAGATGCGACATCAGAGGGGAGCCCTGCACTGGAATTCAGCTATCCGCTATGCT 1080
OY 1081 ACCGGGCTGGAAGCCCAATGAGGCGCTGCAATGTCGCTGCTGCTGCAAGGCA 1140
DB 1081 ACCGGGCTGGAAGCCCAATGAGGCGCTGCAATGTCGCTGCTGCTGCTGCAAGGCA 1140
OY 1141 ATGGCGTGAACCTTGACTTTCGAATCCACACTTACCTTGTGTTGAGGTGGCATATG 1200
DB 1141 ATGGCGTGAACCTTGACTTTCGAATCCACACTTACCTTGTGTTGAGGTGGCATATG 1200
OY 1201 AACATCCCAATATCAGATGTTTCCGGAACTGAGACTTAAAGTGTACGCTGCTGCA 1260
DB 1201 AACATCCCAATATCAGATGTTTCCGGAACTGAGACTTAAAGTGTACGCTGCTGCA 1260
OY 1261 TGGCACAACATGCTGTTGAGAGTGGGCGCTGGAATTCACAGGTCCTTCAATGGT 1320
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OY 1321 GTTACATGGGACAGAGATCGAGTCCGGACTTCTGTGACGTCCAGCCTCAACATCC 1380
DB 1321 GTTACATGGGACAGAGATCGAGTCCGGACTTCTGTGACGTCCAGCCTCAACATCC 1380
OY 1381 TGGAGGAATGTTGGCAGAGAGATGGCTTGAAGAACACAAAGCTGGCTTGAAGG 1440
DB 1381 TGGAGGAATGTTGGCAGAGAGATGGCTTGAAGAACACAAAGCTGGCTTGAAGG 1440
OY 1441 ACCAGGCTGCTTGAATCAATGCTGTGATCCATGTTTTCAGAGCCAGAAATGTA 1500
DB 1441 ACCAGGCTGCTTGAATCAATGCTGTGATCCATGTTTTCAGAGCCAGAAATGTA 1500
OY 1501 CCATCATGACACCACTCGGCTGAGAAATCTTCAATGAAGTACATGCAAGTGAATAC 1560
DB 1501 CCATCATGACACCACTCGGCTGAGAAATCTTCAATGAAGTACATGCAAGTGAATAC 1560
OY 1561 GGTCCGTTGGGGCTCCCGGACAGCTGATTTGGCTGCTCCCTCATGCTGGAGCA 1620
DB 1561 GGTCCGTTGGGGCTCCCGGACAGCTGATTTGGCTGCTCCCTCATGCTGGAGCA 1620
OY 1621 TCACCCCGGTGTTTCAACAGAGAGATGCTGAACTGCTGTCCTTCTACTACTATC 1680
DB 1621 TCACCCCGGTGTTTCAACAGAGAGATGCTGAACTGCTGTCCTTCTACTACTATC 1680

Qy	1681	AGGTAGAGGCGCTGGAAACCCATGTCCTGGCAGGAGACAGAACGGAGACCAGAGGAAG	1744
Db	1681	AGGTAGAGGCGCTGGAAACCCATGTCCTGGCAGGAGACAGAAAGGGAGACCAGAGGAAG	1740
Qy	1741	AGATTCATTGAAAGTCTTGTCACAAAGCTGTGCTCTTTGGCCGTATGTCGTATGCGCAAGA	1800
Db	1741	AGATTCATTGAAAGTCTTGTCACAAAGCTGTGCTCTTTGGCCGTATGTCGTATGTCGCAAGA	1800
Qy	1801	CAATGCGCTGCCAGTCAAGTCCACCATCTCTTTGGCAGACAGACAGAGAAATTCARAGG	1860
Db	1801	CAATGCGCTGCCAGTCAAGTCCACCATCTCTTTGGCAGACAGACAGAGAAATTCARAGG	1860
Qy	1861	CGCTGGCGTGGAGACCTGGGGGGCCTTATTCAGCTGTGACCTTCAACCCAGATTTCTCGCA	1920
Db	1861	CGCTGGCGTGGAGACCTGGGGGGCCTTATTCAGCTGTGACCTTCAACCCAGATTTCTCGCA	1920
Qy	1921	TGATAAATGACAGCGCTGAGCTGCTTGAGAGAGAAACGCGCTGCTGTGTGTGACCAAGTA	1980
Db	1921	TGATAAATGACAGCGCTGAGCTGCTTGAGAGAGAAACGCGCTGCTGTGTGTGACCAAGTA	1980
Qy	1981	CGTTGGCAATGAGAGACTGCGCCGTGGCAATGGAGAGAAACTGAAGAAATCGCTTCATGC	2040
Db	1981	CGTTGGCAATGAGAGACTGCGCCGTGGCAATGGAGAGAAACTGAAGAAATCGCTTCATGC	2040
Qy	2041	TGAAGAGCTCAACAAACAAATTCAGGTACGCTGTGTTGGCCTCGGCTCCAGATGTACC	2100
Db	2041	TGAAGAGCTCAACAAACAAATTCAGGTACGCTGTGTTGGCCTCGGCTCCAGATGTACC	2100
Qy	2101	CTCGGTTCTCGCCCTTTGCTCATGACATTGATCAGAGCTGTGCCACCTGGGGGCGCTCTC	2160
Db	2101	CTCGGTTCTCGCCCTTTGCTCATGACATTGATCAGAGCTGTGCCACCTGGGGGCGCTCTC	2160
Qy	2161	AGCTACACCCGATGGGAGAGGGGAGTACGCTAGTGGGAGAGAGACCTTCCGCGAGCT	2220
Db	2161	AGCTACACCCGATGGGAGAGGGGAGTACGCTAGTGGGAGAGAGACCTTCCGCGAGCT	2220
Qy	2221	GGGCGGTGCAAACTTCAGGCAAGCCTGTGAGACGTTTGTATGTCCGAGGCAAAACAGCA	2280
Db	2221	GGGCGGTGCAAACTTCAGGCAAGCCTGTGAGACGTTTGTATGTCCGAGGCAAAACAGCA	2280
Qy	2281	TTTCAGATCCCAAGCTCTTACACCTCCAAATGTGACCTGGGAGCCGAGACATACAGAGCTCG	2340
Db	2281	TTTCAGATCCCAAGCTCTTACACCTCCAAATGTGACCTGGGAGCCGAGACATACAGAGCTCG	2340
Qy	2341	TGCAAGACTCACAGCCTTTGGACCTACGCAAAAGCCTCAGCAAGCATGCATCGCAAGAAAG	2400
Db	2341	TGCAAGACTCACAGCCTTTGGACCTACGCAAAAGCCTCAGCAAGCATGCATCGCAAGAAAG	2400
Qy	2401	TGTTACCATGAGGCTCAAAATCTGCGCAGATATTAAGAGTCCGACATTCAGCCTGCGCA	2460
Db	2401	TGTTACCATGAGGCTCAAAATCTGCGCAGATATTAAGAGTCCGACATTCAGCCTGCGCA	2460
Qy	2461	CCATCTCGTGTGAACCTCTCTGTGTAGAGTGGCCAAAGGCTGAACTACCTGCGCGGGGAGC	2520
Db	2461	CCATCTCGTGTGAACCTCTCTGTGTAGAGTGGCCAAAGGCTGAACTACCTGCGCGGGGAGC	2520
Qy	2521	ACCTTTGGGGTTTTGCCCGAGGCAACGAGCGGGCCTGTGTCCAAAGCATCTCGAGGCGAATGG	2580
Db	2521	ACCTTTGGGGTTTTGCCCGAGGCAACGAGCGGGCCTGTGTCCAAAGCATCTCGAGGCGAATGG	2580
Qy	2581	TGATATGGCCCCACACCCACACAGACAGTGGCGCTTGAGAGACCTGATGTGAATGTGCACCT	2640
Db	2581	TGATATGGCCCCACACCCACACAGACAGTGGCGCTTGAGAGACCTGATGTGAATGTGCACCT	2640
Qy	2641	ACTGGGTAGTGACAGAAGGCTGCGCCCTGTGCTCACTCAAGCCAGGCTCTCACTTACTGCC	2700
Db	2641	ACTGGGTAGTGACAGAAGGCTGCGCCCTGTGCTCACTCAAGCCAGGCTCTCACTTACTGCC	2700
Qy	2701	CGGACATACACACACCCCAACCCAGATGTGTGTCCAAAAGCTGGGCGACAGTGGGCGACAG	2760
Db	2701	CGGACATACACACACCCCAACCCAGATGTGTGTCCAAAAGCTGGGCGACAGTGGGCGACAG	2760
Qy	2761	AAGACCTTGAGAGACAGAGGCTGGAGGGCCTGTGCGACGCCCTTCAGATACAGCAATGTGA	2820

Db	2761	AAGAGCCTTGAGACACAGAGAGCTGGAGAGCCTCTGTGCACCCCTCAGAGTACAGCAAGTGG	2820
Oy	2821	AGTTACCAACAGCCCAACATTCCTGGAGGTCTGAGAGATTCCCTGCCGTGGGTGT	2880
Db	2821	AGTTACCAACAGCCCAACATTCCTGGAGGTCTGAGAGATTCCCTGCCGTGGGTGT	2880
Oy	2881	CTGTGGCTTCTCGATTCCTGCACAGTCCCATCTGAAGCCAGGTTCTACTCCATCGCT	2940
Db	2881	CTGTGGCTTCTCGATTCCTGCACAGTCCCATCTGAAGCCAGGTTCTACTCCATCGCT	2940
Oy	2941	CTTCCGGGATCACAGCCCCAGAGATTCACCTGACTGTGGCCGTGTCACTACCACA	3000
Db	2941	CTTCCGGGATCACAGCCCCAGAGATTCACCTGACTGTGGCCGTGTCACTACCACA	3000
Oy	3001	CCGAGATGGCCACAGGGTCCCTGCACAGGGTGTGCAGACATGGTCAACAGCCTGA	3060
Db	3001	CCGAGATGGCCACAGGGTCCCTGCACAGGGTGTGCAGACATGGTCAACAGCCTGA	3060
Oy	3061	AGCCCCAAGACCCAGTGTCCCTGCTTGTGTCCGGAATGCCAGGCCCTTCACCTCCCGCAGG	3120
Db	3061	AGCCCCAAGACCCAGTGTCCCTGCTTGTGTCCGGAATGCCAGGCCCTTCACCTCCCGCAGG	3120
Oy	3121	ATCCCTCCCATCCTTGTGCATCTCTGATGGGCTGTGCACAGGCACTGTGCCCTTCGGCAGTT	3180
Db	3121	ATCCCTCCCATCCTTGTGCATCTCTGATGGGCTGTGCACAGGCACTGTGCCCTTCGGCAGTT	3180
Oy	3181	TCTGGCAGCAACGGCTCCATGACTTCCGACACAAAGGAATGGGGAGGCGCATGACCT	3240
Db	3181	TCTGGCAGCAACGGCTCCATGACTTCCGACACAAAGGAATGGGGAGGCGCATGACCT	3240
Oy	3241	TGTGTTTGGGTGCGCGCCCGCCAGATGAGGACCACTACCAAGGAGATGCTGGAGA	3300
Db	3241	TGTGTTTGGGTGCGCGCCCGCCAGATGAGGACCACTACCAAGGAGATGCTGGAGA	3300
Oy	3301	TGGCCCAAGAGGGGTGCTGCATGGGGTGCACAAGCCATTCCCGCTGGCTGGCAAG	3360
Db	3301	TGGCCCAAGAGGGGTGCTGCATGGGGTGCACAAGCCATTCCCGCTGGCTGGCAAG	3360
Oy	3361	CCAAAGTCTATGTTCAAGACATCCTGCGGAGCAGCTGGCCAGGAGTGTCTGCTGTGC	3420
Db	3361	CCAAAGTCTATGTTCAAGACATCCTGCGGAGCAGCTGGCCAGGAGTGTCTGCTGTGC	3420
Oy	3421	TTCACAAGAGGACCGAGGCACTCTATGTTTGGCGGGATGTGGCGATGGCCGGGACGATGG	3480
Db	3421	TTCACAAGAGGACCGAGGCACTCTATGTTTGGCGGGATGTGGCGATGGCCGGGACGATGG	3480
Oy	3481	CCCAACACCCTTAAGACAGCTGGTGGCTGCCAAGCTGAATTGAATGAGAGCAAGTGCAGG	3540
Db	3481	CCCAACACCCTTAAGACAGCTGGTGGCTGCCAAGCTGAATTGAATGAGAGCAAGTGCAGG	3540
Oy	3541	ACTATTTCTTCACCTCAAGAAGCCAGAAGGCGCTATACAGCAATATCTTCGGTGTGTAT	3600
Db	3541	ACTATTTCTTCACCTCAAGAAGGCGATACAGAAAGGCTATCTTCGGTGTGTAT	3600
Oy	3601	TTCCTTACGAGCGCAAGAAGGACAGGGTGGCGGTGTGACGCCAGCAGCTGAGATGTAG	3660
Db	3601	TTCCTTACGAGCGCAAGAAGGACAGGGTGGCGGTGTGACGCCAGCAGCTGAGATGTAG	3660
Oy	3661	CGCTGTGAGGGCTTACAGAGAGGGTTAAAGCTGCCGCGCAGAACTTAAAGATGAGCCA	3720
Db	3661	CGCTGTGAGGGCTTACAGAGAGGGTTAAAGCTGCCGCGCAGAACTTAAAGATGAGCCA	3720
Oy	3721	GCTCGCAATTATCTGAGGTCAACAGGGCTGGGGAGATGGAAGTATATCCCCCAGC	3780
Db	3721	GCTCGCAATTATCTGAGGTCAACAGGGCTGGGGAGATGGAAGTATATCCCCCAGC	3780
Oy	3781	CTCAAGTCTTATTTCTCAACAGTGTCTCCCATCAAGCCCTTACTGACTCTTAACAA	3840
Db	3781	CTCAAGTCTTATTTCTCAACAGTGTCTCCCATCAAGCCCTTACTGACTCTTAACAA	3840
Oy	3841	GTAGACACCTTGATTTGATCGAGGCTCTCTCAAACTGGGGCTCCTGTGCTCCCTTGG	3900

Db 3841 GTAGACCCCTGGATGATGAGACCTCTCTCTCAAACTGGGGCCCTCCCTGGTCCCTTGG 3900
 QY 3901 AGACAAATCTTAATATCCAGGCTGGCGAGTGGTGAAGATGAACTTGGCTGAGT 3960
 Db 3901 AGACAAATCTTAATATCCAGGCTGGCGAGTGGTGAAGATGAACTTGGCTGAGT 3960
 QY 3961 GCACCACTTCAGTACCCAGGAGGCTCTTCCACCACTGTGTATTTAACTGCTTGG 4020
 Db 3961 GCACCACTTCAGTACCCAGGAGGCTCTTCCACCACTGTGTATTTAACTGCTTGG 4020
 QY 4021 TGTACGATTTATGCTCTGTATTTAAACCAACCCAGTCTGCCATGGCC 4080
 Db 4021 TGTACGATTTATGCTCTGTATTTAAACCAACCCAGTCTGCCATGGCC 4080
 QY 4081 ACTTGGCTTCTCTGTATGATTCCTTATGAGATATTTACATGATTTACTT 4140
 Db 4081 ACTTGGCTTCTCTGTATGATTCCTTATGAGATATTTACATGATTTACTT 4140
 QY 4141 TATATC 4145
 Db 4141 TATATC 4145

RESULT 2
 AAF20940
 ID AAF20940 standard; DNA; 4145 BP.

AC AAF20940;
 DT 14-MAR-2001 (first entry)

Human inducible nitric oxide synthase polynucleotide fragment #2507.

KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
 KW human; airway disorder; bronchoconstriction; lung inflammation;
 KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
 KW immunosuppressive; antihistaminic; analgesic; hypotensive; cytostatic;
 KW respiratory obstruction; pulmonary obstruction; impeded respiration;
 KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
 KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
 KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
 KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
 KW cancer; ss.

OS Homo sapiens.

FN WO20062736-A2.

PD 26-OCT-2000.

PF 24-MAR-2000; 2000WO-US08020.

PR 06-APR-1999; 99US-0127958.

PA (UYEC-) UNIV EAST CAROLINA.

PA (NYCE/) NYCE J W.

PI NYCE JW;

DR WPI; 2000-679539/66.

PT Low adenosine (A) content antisense oligonucleotides which do not
 trigger adenosine receptors during metabolism, useful e.g. for treating
 PT cancers and respiratory obstructions.

PS Disclosure; Page 254-255; 1592pp; English.

CC The present invention describes low adenosine (A) content antisense
 CC oligonucleotides and compositions (I) comprising them. In the antisense
 CC oligonucleotides the A is replaced by a 'Universal' or alternative base.
 CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
 CC immunosuppressive, antihistaminic, hypotensive and cytostatic activities.
 CC The antisense oligonucleotides and (I) can be used to down-regulate the

CC expression and/or activity of target polypeptides associated with
 CC lung/respiratory disorders and malignancies, such as stimulating and
 CC activating peptide factors and transmitters, transcription factors,
 CC immunoglobulins and antibodies, antibody receptors, cytokines and
 CC chemokines, endogenously produced specific and non-specific enzymes,
 CC binding proteins, adhesion molecules and their receptors, cytokine and
 CC chemokine receptors, adenosine receptors, bradykinin receptors, central
 CC nervous system (CNS) and peripheral nervous and non-nervous system
 CC receptors, CNS and peripheral nervous and non-nervous system peptide
 CC transmitters, defensins, growth factors, vasodilative peptides and
 CC receptors, binding proteins and malignancy associated proteins. The
 CC antisense oligonucleotides may be used in this way to treat disorders
 CC including respiratory obstruction (especially pulmonary obstruction
 CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies)
 CC and/or surfactant hypoproduction which are associated with a disease or
 CC condition selected from pulmonary vasoconstriction, inflammation,
 CC allergies, asthma, impeded respiration, respiratory distress syndrome
 CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
 CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
 CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
 CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
 CC fragments and antisense oligonucleotides used in the exemplification of
 CC the present invention.

SQ Sequence 4145 BP; 968 A; 1203 C; 1126 G; 848 T; 0 other;

Query Match 100.0%; Score 4145; DB 21; Length 4145;

Best local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps 0;

Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTGCGGACCTTTGATGAGGGAGTGGGAGTTCTAGACAGTCCG 60
 Db 1 CTGCTTTAAATCTCTGCGGACCTTTGATGAGGGAGTGGGAGTTCTAGACAGTCCG 60
 QY 61 AATTTCTCAAGGACGAGGCTCTCTCTGTTGACTGCTTACCTCCGGGGAGGAGTGC 120
 Db 61 AATTTCTCAAGGACGAGGCTCTCTCTGTTGACTGCTTACCTCCGGGGAGGAGTGC 120
 QY 121 AGCAGCTGCAAGCCCGACAGTGAAGACATCTGAGCTCAATTCAGATATGACATTA 180
 Db 121 AGCAGCTGCAAGCCCGACAGTGAAGACATCTGAGCTCAATTCAGATATGACATTA 180
 QY 181 GTGACCTGCTTTTAAAGCCATAGAGAGTGGCTGTCTTGAATTTCTGTCAAGACCA 240
 Db 181 GTGACCTGCTTTTAAAGCCATAGAGAGTGGCTGTCTTGAATTTCTGTCAAGACCA 240
 QY 241 AATTCACCAAGATGCAATGAGTGGGAAAAGACATCAACAACATGCGGAAAGCCC 300
 Db 241 AATTCACCAAGATGCAATGAGTGGGAAAAGACATCAACAACATGCGGAAAGCCC 300
 QY 301 CCTGTGCCACCTCCAGTCCAGTACAGAGATGATGATTCATCAACCTCAGCAGAC 360
 Db 301 CCTGTGCCACCTCCAGTCCAGTACAGAGATGATGATTCATCAACCTCAGCAGAC 360
 QY 361 AGCAGATAGTCCCGGACGCCCCCTGTGTGAGAGGGAAGAAAGTCCAGATCTGG 420
 Db 361 AGCAGATAGTCCCGGACGCCCCCTGTGTGAGAGGGAAGAAAGTCCAGATCTGG 420
 QY 421 TCAAGCTGATGCAACCCCATTTGCTCCCGACGCGCATGTGAGATTCAAAAAATGGGGCA 480
 Db 421 TCAAGCTGATGCAACCCCATTTGCTCCCGACGCGCATGTGAGATTCAAAAAATGGGGCA 480
 QY 481 GCGGGATGACTTCCCAAGACACCTTCAACACATCAAGGCCAAGAGATTTTAACTTGCAGGT 540
 Db 481 GCGGGATGACTTCCCAAGACACCTTCAACACATCAAGGCCAAGAGATTTTAACTTGCAGGT 540
 QY 541 CCAATCTTGCTGGGGTCCATTTAGACTCCCAAAAGTTTGACAGAGACCCAGGAGCA 600
 Db 541 CCAATCTTGCTGGGGTCCATTTAGACTCCCAAAAGTTTGACAGAGACCCAGGAGCA 600
 QY 601 AACCTAACCCCTCCAGATGAGCTTACCTCAAGATGAGTATGTTGTCAACCAATATTACG 660
 Db 601 AACCTAACCCCTCCAGATGAGCTTACCTCAAGATGAGTATGTTGTCAACCAATATTACG 660

QY 661 GCTCCTTCAAGAGCGCAAAATAGAGAACATCTGGCCAGGCTGGAACCGGTAAACAAGG 720
|||||
Db 661 GCTCCTTCAAGAGCGCAAAATAGAGAACATCTGGCCAGGCTGGAACCGGTAAACAAGG 720
QY 721 AGATGAAGAACACAGAGAACTTACCACTGAGAGGAGATGAGCTATCTTGGCACCAAGC 780
|||||
Db 721 AGATGAAGAACACAGAGAACTTACCACTGAGAGGAGATGAGCTATCTTGGCACCAAGC 780
QY 781 AGGCGCTGGGCAATGCCCCACGCTGCATTTGGAGAGATCCAGTGTCCAACTGCAAGTCT 840
|||||
Db 781 AGGCGCTGGGCAATGCCCCACGCTGCATTTGGAGAGATCCAGTGTCCAACTGCAAGTCT 840
QY 841 TCGATGCCCCGAGAGCTTTTCCATCGCCCCGGAATATTTTGAACACATCTGCAACACGTCG 900
|||||
Db 841 TCGATGCCCCGAGAGCTTTTCCATCGCCCCGGAATATTTTGAACACATCTGCAACACGTCG 900
QY 901 GTTACTCCACCAACATGAGCAATCAGAGTGGCCATCACCCTGTTCCTCCCGAGGAGTG 960
|||||
Db 901 GTTACTCCACCAACATGAGCAATCAGAGTGGCCATCACCCTGTTCCTCCCGAGGAGTG 960
QY 961 ATGGCAAGCAGCACTTCCGGGTGTGGAAATGCTCAGCTATCCGCTATGCTGCTACCAAG 1020
|||||
Db 961 ATGGCAAGCAGCACTTCCGGGTGTGGAAATGCTCAGCTATCCGCTATGCTGCTACCAAG 1020
QY 1021 TGGCAATGCGACATCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080
|||||
Db 1021 TGGCAATGCGACATCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080
QY 1081 ACCTGGGCTTGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1140
|||||
Db 1081 ACCTGGGCTTGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1140
QY 1141 ATGGCGGTGACCTGAGCTTTTGAATCCACTGACCTTGTGCTTGAAGTGGCCATG 1200
|||||
Db 1141 ATGGCGGTGACCTGAGCTTTTGAATCCACTGACCTTGTGCTTGAAGTGGCCATG 1200
QY 1201 AACATCCCAATGAGAGTGTTCGGAAATGAGGCTAAAGTGTACGGCTCTGCAAG 1260
|||||
Db 1201 AACATCCCAATGAGAGTGTTCGGAAATGAGGCTAAAGTGTACGGCTCTGCAAG 1260
QY 1261 TGGGCAACATGCTGTGAGGTGGGGGCTTGAAGTTCGCCAGGCTGCTCATAGGCT 1320
|||||
Db 1261 TGGGCAACATGCTGTGAGGTGGGGGCTTGAAGTTCGCCAGGCTGCTCATAGGCT 1320
QY 1321 GGTACATGCGGACAGAGATGAGATCGGGAGCTTGTGTGACGTCGACGCTTACACATCC 1380
|||||
Db 1321 GGTACATGCGGACAGAGATGAGATCGGGAGCTTGTGTGACGTCGACGCTTACACATCC 1380
QY 1381 TGGAGAGTGGGAGAGAGATGGGCTTGAAGACGACAGCTGGGCTGCTTGAAG 1440
|||||
Db 1381 TGGAGAGTGGGAGAGAGATGGGCTTGAAGACGACAGCTGGGCTGCTTGAAG 1440
QY 1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGTATCATAGTTTTCAGAGCAGAAATGTA 1500
|||||
Db 1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGTATCATAGTTTTCAGAGCAGAAATGTA 1500
QY 1501 CCATCATGAGACACCACTCGGCTGCAGAAATCTTCAAGTACAGGAGTCAAGAAATACC 1560
|||||
Db 1501 CCATCATGAGACACCACTCGGCTGCAGAAATCTTCAAGTACAGGAGTCAAGAAATACC 1560
QY 1561 GGTCCCTGGGGGCTGGCCCGGACAGACTGATTTGGCTGTGCTCCCTCATGCTGGGAGCA 1620
|||||
Db 1561 GGTCCCTGGGGGCTGGCCCGGACAGACTGATTTGGCTGTGCTCCCTCATGCTGGGAGCA 1620
QY 1621 TCACCCCGCTTTTCCACAGAGATGCTGAATCTAGCTGTCCCTTTTCTACTATATC 1680
|||||
Db 1621 TCACCCCGCTTTTCCACAGAGATGCTGAATCTAGCTGTCCCTTTTCTACTATATC 1680
QY 1681 AGGTAGAGGCTTGAAGAAACCATGCTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
|||||
Db 1681 AGGTAGAGGCTTGAAGAAACCATGCTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740

QY 1741 AGATTCATTGAAGAGCTTGTGCTCAAGAGCTGCTCTTGTGCTATGCTATGCGGACAGA 1800
|||||
Db 1741 AGATTCATTGAAGAGCTTGTGCTCAAGAGCTGCTCTTGTGCTATGCTATGCGGACAGA 1800
QY 1801 CAATGGCGTCCGAGTCAAGTCAACATCTCTTTTGGCAGAGACAGAGAAATCAGAG 1860
|||||
Db 1801 CAATGGCGTCCGAGTCAAGTCAACATCTCTTTTGGCAGAGACAGAGAAATCAGAG 1860
QY 1861 CGCTGGCTGGGAGCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGTGTGTGCA 1920
|||||
Db 1861 CGCTGGCTGGGAGCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGTGTGTGCA 1920
QY 1921 TGGATTAATGACAGGCTGAGCTGCTTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
|||||
Db 1921 TGGATTAATGACAGGCTGAGCTGCTTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
QY 1981 CGTTTGGCAATGAGACTGCTTGGCAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
|||||
Db 1981 CGTTTGGCAATGAGACTGCTTGGCAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
QY 2041 TGAAGAGCTCAACACCAATTCAGTACGCTGTGCTTGGCTGCTCCAGCATGTACC 2100
|||||
Db 2041 TGAAGAGCTCAACACCAATTCAGTACGCTGTGCTTGGCTGCTCCAGCATGTACC 2100
QY 2101 CTGCGTCTGGGCTTTGCTCATGACATGATGAAAGCTGTCCACTTGGGGCTCTC 2160
|||||
Db 2101 CTGCGTCTGGGCTTTGCTCATGACATGATGAAAGCTGTCCACTTGGGGCTCTC 2160
QY 2161 AGCTACCCCGATGGGAG 2220
|||||
Db 2161 AGCTACCCCGATGGGAG 2220
QY 2221 GGGCGGTGCAAACTTCAAGGAGAGCTGTGAGAGCTTGTGATGTCCGAGCAACAGACA 2280
|||||
Db 2221 GGGCGGTGCAAACTTCAAGGAGAGCTGTGAGAGCTTGTGATGTCCGAGCAACAGACA 2280
QY 2281 TTGAGATCCCAAGCTCTACACCTTCAATGTGACCTGGGAGCCGACACTACAGGCTCG 2340
|||||
Db 2281 TTGAGATCCCAAGCTCTACACCTTCAATGTGACCTGGGAGCCGACACTACAGGCTCG 2340
QY 2341 TGCAGAGCTCACAGCTTGTGAGACCTCAGCAAGAGCTTGAAGAGATGATGATGATGATG 2400
|||||
Db 2341 TGCAGAGCTCACAGCTTGTGAGACCTCAGCAAGAGCTTGAAGAGATGATGATGATGATG 2400
QY 2401 TGTTCACATGAGGCTCAATCTCGGAGAAATCTACAAAGTCCGACATCCAGCGTGCCA 2460
|||||
Db 2401 TGTTCACATGAGGCTCAATCTCGGAGAAATCTACAAAGTCCGACATCCAGCGTGCCA 2460
QY 2461 CCATCCTGTGGAATCTCTGTGAGATGGGCAAGGCTGAACTACCTGCGGGGGAGC 2520
|||||
Db 2461 CCATCCTGTGGAATCTCTGTGAGATGGGCAAGGCTGAACTACCTGCGGGGGAGC 2520
QY 2521 ACCTTGGGGTTGGCCAGCAACAGCGGCTGTGCAAGAGCATCTCTGAGAGCAATG 2580
|||||
Db 2521 ACCTTGGGGTTGGCCAGCAACAGCGGCTGTGCAAGAGCATCTCTGAGAGCAATG 2580
QY 2581 TGGATGCCCCCAGACCCACAGACAGTGCCTGAGAGACCTGATGAGATGAGCACT 2640
|||||
Db 2581 TGGATGCCCCCAGACCCACAGACAGTGCCTGAGAGACCTGATGAGATGAGCACT 2640
QY 2641 ACTGGGTGAGTCAAGAGAGAGGCTGCCCCCTGTGCTCACTGAGGAGGCTTCACTCTCC 2700
|||||
Db 2641 ACTGGGTGAGTCAAGAGAGAGGCTGCCCCCTGTGCTCACTGAGGAGGCTTCACTCTCC 2700
QY 2701 CGGACATCACACACCCCAACCCAGCTGCTCTCCAAAAGCTGGCCAGAGTGGCCACAG 2760
|||||
Db 2701 CGGACATCACACACCCCAACCCAGCTGCTCTCCAAAAGCTGGCCAGAGTGGCCACAG 2760
QY 2761 AAGAGCTTGAAGACAGAGAGGCTGTGAGGAGGCTTGGCAGGCTTCAAGATGACAGTGA 2820
|||||
Db 2761 AAGAGCTTGAAGACAGAGAGGCTGTGAGGAGGCTTGGCAGGCTTCAAGATGACAGTGA 2820
QY 2821 AGTTTCAACCAACAGCCCACTTCTGAGAGTGTGATGAGAGTTCCTCCGCTGCGGGTGT 2880
|||||

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Db 2821 AGTTTCACCAACGCCCCACATTCCTGGAGGCTCAGAGAGTCCCGCTCCGCGGAGT 2880
Qy 2881 CTGCTGGCTTCCCTGCTTCCAGCTCCCATCTCTGAAGCCAGGTTTACTACATCAGCT 2940
Db 2881 CTGCTGGCTTCCCTGCTTCCAGCTCCCATCTCTGAAGCCAGGTTTACTACATCAGCT 2940
Qy 2941 CTTCCCGGGATACACAGCCCAAGAGATCCACTGATGCTGGCTGCTACCTACACA 3000
Db 2941 CTTCCCGGGATACACAGCCCAAGAGATCCACTGATGCTGGCTGCTACCTACACA 3000
Qy 3001 CCGAGATGGAGGATCCCTCTGACACAGGTTCTGAGAGCATGGCTCAACAGCTCA 3060
Db 3001 CCGAGATGGAGGATCCCTCTGACACAGGTTCTGAGAGCATGGCTCAACAGCTCA 3060
Qy 3061 AGCCCAAGACCCAGTCCCTGCTTGTGGGGAATCCAGGCTCTCCACCTCCCGAG 3120
Db 3061 AGCCCAAGACCCAGTCCCTGCTTGTGGGGAATCCAGGCTCTCCACCTCCCGAG 3120
Qy 3121 ATCCCTCCCATCTCTGATCCCTCATGCGGCTGGACAGCATGCTGCTCCGAGTT 3180
Db 3121 ATCCCTCCCATCTCTGATCCCTCATGCGGCTGGACAGCATGCTGCTCCGAGTT 3180
Qy 3181 TCTGGACCAACGCGCTCCATGATCCACAGCAAGGAGTGGGGAGCCGCAATGACT 3240
Db 3181 TCTGGACCAACGCGCTCCATGATCCACAGCAAGGAGTGGGGAGCCGCAATGACT 3240
Qy 3241 TGGTGTGGGTCGCGCCGCGCCAGATGAGACACATCTACAGAGAGATGCTGAGA 3300
Db 3241 TGGTGTGGGTCGCGCGCCGCGCCAGATGAGACACATCTACAGAGAGATGCTGAGA 3300
Qy 3301 TGGCCCAAGAGGAGTCTGATGCGGAGCAGACAGCTATTCGCGCTGCTGGCAGC 3360
Db 3301 TGGCCCAAGAGGAGTCTGATGCGGAGCAGACAGCTATTCGCGCTGCTGGCAGC 3360
Qy 3361 CCAAGGCTATGTTTACAGACATCTCTGGGAGCAGCTGGCCAGGAGTCTCCGTTGC 3420
Db 3361 CCAAGGCTATGTTTACAGACATCTCTGGGAGCAGCTGGCCAGGAGTCTCCGTTGC 3420
Qy 3421 TCCACAAGAGGAGCCAGGCACTCTATGTTTCCGGGATGTCGCGATGCGCGGAGCTG 3480
Db 3421 TCCACAAGAGGAGCCAGGCACTCTATGTTTCCGGGATGTCGCGATGCGCGGAGCTG 3480
Qy 3481 CCCACACCTGAAAGCAGCTGCTGCTGCAAGCTGAATGAATGAGAGCAGTGGAGG 3540
Db 3481 CCCACACCTGAAAGCAGCTGCTGCTGCAAGCTGAATGAATGAGAGCAGTGGAGG 3540
Qy 3541 ACTATTTCTTCAAGCTTAAGAGCAGAGCGCTATCAGAAATATCTTGGTGTAT 3600
Db 3541 ACTATTTCTTCAAGCTTAAGAGCAGAGCGCTATCAGAAATATCTTGGTGTAT 3600
Qy 3601 TTCTTACGAGGAGAGAGAGAGGCTGCGGTGCGAGCCGACAGCCTGGAGATGTGAG 3660
Db 3601 TTCTTACGAGGAGAGAGAGAGGCTGCGGTGCGAGCCGACAGCCTGGAGATGTGAG 3660
Qy 3661 CGCTCTGAGGCTTACAGAGGAGGTTAAAGCTCCGCGCAGAACTTAAGATGGAGCA 3720
Db 3661 CGCTCTGAGGCTTACAGAGGAGGTTAAAGCTCCGCGCAGAACTTAAGATGGAGCA 3720
Qy 3721 GCTCTGATATCTGAGGCTACAGGCTGGGAGATGAGAGAAATGATATCCCGACG 3780
Db 3721 GCTCTGATATCTGAGGCTACAGGCTGGGAGATGAGAGAAATGATATCCCGACG 3780
Qy 3781 CTGAAGTCTTATTTCCCAAGCTTCTCCCATCAAGCCCTTACTGACCTCAACAA 3840
Db 3781 CTGAAGTCTTATTTCCCAAGCTTCTCCCATCAAGCCCTTACTGACCTCAACAA 3840
Qy 3841 GTTAGCACCCTGATGATGAGAGCTCTCTCTCAAACTGGGGCTCCCTGCTCCCTGG 3900
Db 3841 GTTAGCACCCTGATGATGAGAGCTCTCTCTCTCAAACTGGGGCTCCCTGCTCCCTGG 3900
Qy 3901 AGCAAAATCTTAAATGAGGCTTGGAGTGGGGAAGATGGAATCTGCTGTAGT 3960
Db 3901 AGCAAAATCTTAAATGAGGCTTGGAGTGGGGAAGATGGAATCTGCTGTAGT 3960

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Db 3901 AGCAAAATCTTAAATGAGGCTTGGAGTGGGGAAGATGGAATCTGCTGTAGT 3960
Qy 3961 GCACCACTTCAAGTGACACACAGAGGAGTGTATGACACCACTGTATTTACTGCTTG 4020
Db 3961 GCACCACTTCAAGTGACACACAGAGGAGTGTATGACACCACTGTATTTACTGCTTG 4020
Qy 4021 TGTACAGTATTTATGCTGTATTTAAATAACCAACCCAGTCTGTCCCAATGCC 4080
Db 4021 TGTACAGTATTTATGCTGTATTTAAATAACCAACCCAGTCTGTCCCAATGCC 4080
Qy 4081 ACTTGGCTCTCCCTGATGATTCCTGATGAGATATTACATGAAATGCAATTTACTT 4140
Db 4081 ACTTGGCTCTCCCTGATGATTCCTGATGAGATATTACATGAAATGCAATTTACTT 4140
Qy 4141 TAATC 4145
Db 4141 TAATC 4145

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RESULT 3
 AAA34818
 ID AAA34818 standard; DNA: 4145 BP.
 XX
 AC AAA34818;
 XX
 DT 28-JUL-2000 (first entry)
 XX
 DE Human adenosine receptor related polynucleotide SEQ ID NO:2507.
 XX
 KW Human: adenosine receptor; low adenosine antisense oligonucleotide;
 KW phosphorothioate; impaired respiration; inflammation; allergy;
 KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
 KW antiallergic; antihistaminic; cytosolic; analgesic; impaired airway;
 KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
 KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
 KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
 KW cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
 KW
 OS Homo sapiens.
 XX
 PN WO200009525-A2.
 XX
 PD 24-FEB-2000.
 XX
 PF 03-AUG-1999; 99WO-US17712.
 XX
 PR 03-AUG-1998; 98US-0095212.
 XX
 PA (UYEC-) UNIV EAST CAROLINA.
 XX
 PI Nyce JW;
 XX
 DR WP1; 2000-205971/18.
 XX
 PT New antisense oligonucleotides useful for treating e.g. pulmonary
 PT vasoconstriction, inflammation, allergies, asthma, hypertension,
 PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
 PT cancers
 XX
 PS
 XX
 PS Disclosure: Page 664-665; 1343pp; English.
 XX
 CC The present invention describes a new composition comprising an
 CC antisense oligonucleotide (ON) with low adenosine (up to 15%), which
 CC targets nucleic acids involved in bronchoconstriction, allergies, and/or
 CC inflammation. The ON can have antiinflammatory, antiallergic
 CC antispasmodic, cytosolic and analgesic activities. The compositions are
 CC useful for the treatment of diseases associated with inflammation,
 CC impaired airways, including lung disease and diseases whose secondary
 CC effects afflict the lungs of a subject. They can be used for treating
 CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies,
 CC asthma, impaired respiration, respiratory distress syndrome, pain, cystic
 CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
 CC pulmonary disease (COPD), and cancers such as leukemias, lymphomas,
 CC

CC carcinoma, and cancers which may metastasize to the lungs, including
 CC breast and prostate cancer. The reduction of the adenose content of
 CC the ONS reduces side effects. The A-containing ONS break down with the
 CC release of deoxyadenosine which activates adenose receptors causing the
 CC bronchoconstriction and inflammation. AAA3213 to AAA5312 represent the
 CC nucleotide sequences given in the sequence listing from the present
 CC invention, which correspond to SEQ ID NO:1 to 185, and then the last
 CC 185 sequences are also called SEQ ID NO:1 to 185, but the sequences
 CC differ from the previously named sequences. SEQ ID NO:11 to 1680
 CC (AAA3213 to AAA3992) are specifically claimed ONS from the present
 CC invention. N.B. Sequences given in the disclosure of the present
 CC invention do not match up with their corresponding SEQ ID NO: sequences
 CC given in the sequence listing.

XX Sequence 4145 BP; 968 A; 1203 C; 1126 G; 848 T; 0 other;

Query Match 100.0%; Score 4145; DB 21; Length 4145;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTGCGCCACCTTTGATGAGGGGACGAGTCTTAGACAGTCCG 60
 DB 1 CTGCTTTAAATCTCTGCGCCACCTTTGATGAGGGGACGAGTCTTAGACAGTCCG 60
 QY 61 AAGTTCACAGGACAGGCTCTTCTGCTTGAAGTCTCTTACCCCGGGGAGCAGTGC 120
 DB 61 AAGTTCACAGGACAGGCTCTTCTGCTTGAAGTCTCTTACCCCGGGGAGCAGTGC 120
 QY 121 AGCCAGTGCAGAGCCCGACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTACATA 180
 DB 121 AGCCAGTGCAGAGCCCGACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTACATA 180
 QY 181 GTGACCTGCTTTGAAGCCATAGATGAGTGGCTCTCTTGAATTTCTTTGAAGCCA 240
 DB 181 GTGACCTGCTTTGAAGCCATAGATGAGTGGCTCTCTTGAATTTCTTTGAAGCCA 240
 QY 241 AATTCACACAGTATGATGATGAGGAAAAAGACATCAACACATGTGAGAAAAAGCC 300
 DB 241 AATTCACACAGTATGATGATGAGGAAAAAGACATCAACACATGTGAGAAAAAGCC 300
 QY 301 CCGTGGCACCCTCCAGTCCAGTACAGAGATGACCTTCAAGTATCAGACCTCAGCAAGC 360
 DB 301 CCGTGGCACCCTCCAGTCCAGTACAGAGATGACCTTCAAGTATCAGACCTCAGCAAGC 360
 QY 361 AGCAGATGATGAGCCCGGAGCCCTGCTGGAGGAGGAGGAAAGATCTCCGAATCTGTG 420
 DB 361 AGCAGATGATGAGCCCGGAGCCCTGCTGGAGGAGGAGGAAAGATCTCCGAATCTGTG 420
 QY 421 TCAAGCTGATGCAACCCATTTCTCTCCCGACGCGCATGTGAGATCAAAAACTGGGCA 480
 DB 421 TCAAGCTGATGCAACCCATTTCTCTCCCGACGCGCATGTGAGATCAAAAACTGGGCA 480
 QY 481 GCGGATGATCTTCCAGACACATCTTCAAGGCGCAAGGATTTTAACTTGGAGT 540
 DB 481 GCGGATGATCTTCCAGACACATCTTCAAGGCGCAAGGATTTTAACTTGGAGT 540
 QY 541 CCAATCTTGGCTGGGCTGCAATTTGACTCCCAAAAGTTTACAGAGAGCCAGGACA 600
 DB 541 CCAATCTTGGCTGGGCTGCAATTTGACTCCCAAAAGTTTACAGAGAGCCAGGACA 600
 QY 601 AGCCTACCCCTCCAGATGAGTCTTCAAGCTATGATGATGATGATGATGATGATGAT 660
 DB 601 AGCCTACCCCTCCAGATGAGTCTTCAAGCTATGATGATGATGATGATGATGATGATGAT 660
 QY 661 GCTCTTGAAGAGGCAAAATAGAGAAACATCTGGCCAGGCTGGAAGCGGTAAACAAG 720
 DB 661 GCTCTTGAAGAGGCAAAATAGAGAAACATCTGGCCAGGCTGGAAGCGGTAAACAAG 720
 QY 721 AGATGAAACACAGGAACTACCACTGAGGAGGAGATGAGCTATCTTCCACCAAGC 780
 DB 721 AGATGAAACACAGGAACTACCACTGAGGAGGAGATGAGCTATCTTCCACCAAGC 780
 QY 781 AGGCTGGGCGCAATGCCCAAGCTGATTTGGAGGATCCAGTGTCTCAACTGCAAGTCT 840

DB 781 AGGCTGGGCGCAATGCCCAAGCTGATTTGGAGGATTCAGTGTCTCAACTGCAAGTCT 840
 QY 841 TCGATGCCCCGAGCTTTCCACTGCCCCGGGAAATGTTGAACACATGTGACAGACGTGC 900
 DB 841 TCGATGCCCCGAGCTTTCCACTGCCCCGGGAAATGTTGAACACATGTGACAGACGTGC 900
 QY 901 GTTACTCCACCAACATATGCAACATCAGATGAGGCTACCGCTGTTCCCGAGGAGTG 960
 DB 901 GTTACTCCACCAACATATGCAACATCAGATGAGGCTACCGCTGTTCCCGAGGAGTG 960
 QY 961 ATGGCAACAGACTTCCGGGTGAGAAATGCTCAGCTCATCCGTATGCTGCTACACA 1020
 DB 961 ATGGCAACAGACTTCCGGGTGAGAAATGCTCAGCTCATCCGTATGCTGCTACACA 1020
 QY 1021 TGCCAGATGCGACATTCAGAGGGGACCTGCAACAGTGAATTCACAGTGTGATCG 1080
 DB 1021 TGCCAGATGCGACATTCAGAGGGGACCTGCAACAGTGAATTCACAGTGTGATCG 1080
 QY 1081 ACCTGGCTGGAAGGCCAAGTACGGCCCTTGCATGATGCTCCCTGCTCTGAGGCA 1140
 DB 1081 ACCTGGCTGGAAGGCCAAGTACGGCCCTTGCATGATGCTCCCTGCTCTGAGGCA 1140
 QY 1141 ATGGCCGTGACCTGAGCTCTTGAATTCACACTGACCTTGTGCTTGAAGTGGCATGG 1200
 DB 1141 ATGGCCGTGACCTGAGCTCTTGAATTCACACTGACCTTGTGCTTGAAGTGGCATGG 1200
 QY 1201 AACATCCCAATACGAGAGTGTGGGAACTGAGACCTAAGAGGAGCCCTGCTGAG 1260
 DB 1201 AACATCCCAATACGAGAGTGTGGGAACTGAGACCTAAGAGGAGCCCTGCTGAG 1260
 QY 1261 TGGCCAACTGCTGCTTGAAGTGGGCGGCTGAGTCTCCAGAGTGGCCCTTCAATGCT 1320
 DB 1261 TGGCCAACTGCTGCTTGAAGTGGGCGGCTGAGTCTCCAGAGTGGCCCTTCAATGCT 1320
 QY 1321 GGTACATGAGGACAGAGATTCGAGATCCGGGACTTGTGAGCTCCAGGGCTTAAACATCC 1380
 DB 1321 GGTACATGAGGACAGAGATTCGAGATCCGGGACTTGTGAGCTCCAGGGCTTAAACATCC 1380
 QY 1381 TGGAGAAATGGGACAGAGATGAGGCTTGAAGACGACAGTGGCTCTGCTGGAAG 1440
 DB 1381 TGGAGAAATGGGACAGAGATGAGGCTTGAAGACGACAGTGGCTCTGCTGGAAG 1440
 QY 1441 ACCAGCTGCTGCTTGAATCAACATTTCTGTATCCATGATTTTGAAGAGATGGA 1500
 DB 1441 ACCAGCTGCTGCTTGAATCAACATTTCTGTATCCATGATTTTGAAGAGATGGA 1500
 QY 1501 CCATCATGACACACACCTGGCTGCGAATTCCTTCAATGAAGTACAGATGATGATCC 1560
 DB 1501 CCATCATGACACACACCTGGCTGCGAATTCCTTCAATGAAGTACAGATGATGATCC 1560
 QY 1561 GGTCCGCTGGGCTGCGCGGAGACTGATTTGGCTGCTCCCTCCATGCTGGAGACA 1620
 DB 1561 GGTCCGCTGGGCTGCGCGGAGACTGATTTGGCTGCTCCCTCCATGCTGGAGACA 1620
 QY 1621 TCAACCCCGCTGTTTCAACAGAGATGCTGAACTGCTGCTGCTTCTACTATAC 1680
 DB 1621 TCAACCCCGCTGTTTCAACAGAGATGCTGAACTGCTGCTGCTTCTACTATAC 1680
 QY 1681 AGGTAGAGGCTGGAAGAACCATGCTGCGAGAGACAGAGGAGGAGACCCAGAGAGAG 1740
 DB 1681 AGGTAGAGGCTGGAAGAACCATGCTGCGAGAGACAGAGGAGGAGACCCAGAGAGAG 1740
 QY 1741 AGATTCATTAAGAAAGTGTGTCAAAGCTGTGCTTTGCTGTATGCTGATGCGCAGA 1800
 DB 1741 AGATTCATTAAGAAAGTGTGTCAAAGCTGTGCTTTGCTGTATGCTGATGCGCAGA 1800
 QY 1801 CAATGGCTCCGAGTACAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1860
 DB 1801 CAATGGCTCCGAGTACAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1860
 QY 1861 CGCTGGCTGGAGCTGGGAGCTTATTCAGTGTGCTTCAACCCCAAGGTTGTCTGCA 1920

Db	1861	CTGTGCGCTGGGAACTGCTGGGGGCGCTTATTCACGTGTGCTTCAACCCCAAGTTGTCTGCA	1920
Qy	1921	TGGATTAAGTACAGGCTGAAGTCTGCTGGAGAGAAACGGCTCTGTTGGTGGTGACCAAGTA	1980
Db	1921	TGGATTAAGTACAGGCTGAAGTCTGCTGGAGAGAGAAACGGCTCTGTTGGTGGTGACCAAGTA	1980
Qy	1981	CGTTTGGCAATGAGAGACTGGCCCTGGCAATGGAGAGAAATCAAGAAATCGCTTTCAATC	2040
Db	1981	CGTTTGGCAATGAGAGACTGGCCCTGGCAATGGAGAGAAATCAAGAAATCGCTTTCAATC	2040
Qy	2041	TGAAAGAGCTTAACAAACAATTCAGGTAAGCTGTGTTTGGCTTGGGCTCCAGCATGTATAC	2100
Db	2041	TGAAAGAGCTTAACAAACAATTCAGGTAAGCTGTGTTTGGCTTGGGCTCCAGCATGTATAC	2100
Qy	2101	CTCGGTTCTGGGCTTTGGTCTATACATGTATGATCGAAGATCTGCCACTGGGGGCTCTC	2160
Db	2101	CTCGGTTCTGGGCTTTGGTCTATACATGTATGATCGAAGATCTGCCACTGGGGGCTCTC	2160
Qy	2161	AGCTCACCCCGATGTGGAGAAAGGGATAGCTCAATGGGCGAGAGAGCGCTTCGCGAGCT	2220
Db	2161	AGCTCACCCCGATGTGGAGAAAGGGATAGCTCAATGGGCGAGAGAGCGCTTCGCGAGCT	2220
Qy	2221	GGGCGCTGCAAAACCTTCAAGGACCCGTGTGAGACGTTTGATGTCCGAGGGCAACAGACAA	2280
Db	2221	GGGCGCTGCAAAACCTTCAAGGACCCGTGTGAGACGTTTGATGTCCGAGGGCAACAGACAA	2280
Qy	2281	TTCAAGATCCCAAGCTCTACACCTCCAAATGTGACCTTGGAGCCCGCACACTACAGGCTCG	2340
Db	2281	TTTCAGATCCCAAGCTCTACACCTCCAAATGTGACCTTGGAGCCCGCACACTACAGGCTCG	2340
Qy	2341	TGCAGAGCTACAGGCTTTTGGACCTTCAGCAAAACCCCTCACAGCATGTATGCCAAGACG	2400
Db	2341	TGCAGAGCTACAGGCTTTTGGACCTTCAGCAAAACCCCTCACAGCATGTATGCCAAGACG	2400
Qy	2401	TGTTCAACCATGAGGCTCAAAATCTCGGAGAAATCTAGCAAAATCCGAAATCCAGCCGTCGCA	2460
Db	2401	TGTTCAACCATGAGGCTCAAAATCTCGGAGAAATCTAGCAAAATCCGAAATCCAGCCGTCGCA	2460
Qy	2461	CCATCCGAGTGGGAAACTCTCTGTGAGATGGGCCAAGGCGCTGAACCTACCTCCGGGGAGC	2520
Db	2461	CCATCTCGTGTGAAACTCTCTGTGAGATGGGCCAAGGCGCTGAACCTACCTCCGGGGAGC	2520
Qy	2521	ACCTTGGGGGTTTGGCCAGGCAACACCGGCGCTGTGTCCAAAGCATCTGGAGCGAGTGTG	2580
Db	2521	ACCTTGGGGGTTTGGCCAGGCAACACCGGCGCTGTGTCCAAAGCATCTGGAGCGAGTGTG	2580
Qy	2581	TGGATGGCCCCACACCCCAACAGACAGTGGGCTTGGAGACCTGGATGAGATGGGACGT	2640
Db	2581	TGGATGGCCCCACACCCCAACAGACAGTGGGCTTGGAGACCTGGATGAGATGGGACGT	2640
Qy	2641	ACTGGGTCAGTACAAAGAGGCTGCCCTCTGCTCACTGACGAGGCGCTCACCTACTGCC	2700
Db	2641	ACTGGGTCAGTACAAAGAGGCTGCCCTCTGCTCACTGACGAGGCGCTCACCTACTGCC	2700
Qy	2701	CGGACATCAACACCCCAACCCCAAGCTGTCTCTCCAAAAGCTGGGCCAGGTGGCCACAG	2760
Db	2701	CGGACATCAACACCCCAACCCCAAGCTGTCTCTCCAAAAGCTGGGCCAGGTGGCCACAG	2760
Qy	2761	AAGAGGCTTAGAGACAGAGGCTGGAGGGCCCTTGCCACGCGCTCAGAGTACACAAAGTGA	2820
Db	2761	AAGAGGCTTAGAGACAGAGGCTGGAGGGCCCTTGCCACGCGCTCAGAGTACACAAAGTGA	2820
Qy	2821	AGTTCAACCAACAGCCCAATTCCTGAGAGTCTTAGAGAGATTTCCCGTCCCTGCGGGGT	2880
Db	2821	AGTTCAACCAACAGCCCAATTCCTGAGAGTCTTAGAGAGATTTCCCGTCCCTGCGGGGT	2880
Qy	2881	CTGCTGGCTTCTGCTTTCCACAGCTCCCATTTCTAAAGCCAGGTTTCACTTCATCAAGCT	2940
Db	2881	CTGCTGGCTTCTGCTTTCCACAGCTCCCATTTCTAAAGCCAGGTTTCACTTCATCAAGCT	2940
Qy	2941	CTTCCCGGAGTACACGCGCCAGAGGATCCACTGACTGTGGCGGTGATCACTACACA	3000
Db	2941	CTTCCCGGAGTACACGCGCCAGAGGATCCACTGACTGTGGCGGTGATCACTACACA	3000

QY	3001	CCGGAATGCGCAGGGGTCCCGCGACACACAGGTCGTCTGCACACATAGGTCTAACACCTCTGA	3061
Db	3001	CCGGAGATGCCAGGGGTCCCTCGACACACAGGTGTCTGCACACATAGGTCTAACACCTCTGA	3060
QY	3061	AGCCCCAAGACCAGTGGCTTCGTTTGTGGGGAATGGCACAGGCTTCACCTCCCGAGG	3120
Db	3061	AGCCCCAAGACCAGTGGCTTCGTTTGTGGGGAATGGCACAGGCTTCACCTCCCGAGG	3120
QY	3121	ATGCCCTCCCATCCTTGCATTCCTCATTCGGGCTTGGCACAGGCATCGTGCCCTTCGCACTT	3180
Db	3121	ATGCCCTCCCATCCTTGCATTCCTCATTCGGGCTTGGCACAGGCATCGTGCCCTTCGCACTT	3180
QY	3181	TCTGGAGCAACGGCTCCATATACCTCCAGCACAAAGGAGTGGCGGGAGAGCCCATGAGCT	3240
Db	3181	TCTGGAGCAACGGCTCCATATACCTCCAGCACAAAGGAGTGGCGGGAGAGCCCATGAGCT	3240
QY	3241	TGGTCTTTGGGTGGCGCGCCGCCAATAGGAGCCACATCTCCAGAGAGAGATGCTGGAGA	3300
Db	3241	TGGTCTTTGGGTGGCGCGCCGCCAATAGGAGCCACATCTCCAGAGAGAGATGCTGGAGA	3300
QY	3301	TGGCCCAAGAGGGGTGCTGCATGCGGTGCACACACCTATTCCCGCGCTGGCTGGCAAG	3360
Db	3301	TGGCCCAAGAGGGGTGCTGCATGCGGTGCACACACCTATTCCCGCGCTGGCTGGCAAG	3360
QY	3361	CCAAGTCTATGTTTCAGACATCTCTGCGGACAGCTGGCCAGGAGGTGCTCCGTGTGC	3420
Db	3361	CCAAGTCTATGTTTCAGACATCTCTGCGGACAGCTGGCCAGGAGGTGCTCCGTGTGC	3420
QY	3421	TCCACAAGAGACCCAGGCGACCTGTATGTTTGGGGGATGTGGCATGAGCCCGGGACGTGG	3480
Db	3421	TCCACAAGAGACCCAGGCGACCTGTATGTTTGGGGGATGTGGCATGAGCCCGGGACGTGG	3480
QY	3481	CCGACACCTCTGAAGCAGCTGTGTGGTCCCAAGCTGAATTGAATAGAGCAGGCTGCAGG	3540
Db	3481	CCGACACCTCTGAAGCAGCTGTGTGGTCCCAAGCTGAATTGAATAGAGCAGGCTGCAGG	3540
QY	3541	ACTATTTCTTTCACCTCTGAAGAGCCAAAGCGCTATTCACAGAGATATCTCGTGCTCTAT	3600
Db	3541	ACTATTTCTTTCACCTCTGAAGAGCCAAAGCGCTATTCACAGAGATATCTCGTGCTCTAT	3600
QY	3601	TTTCTTACGAGGCGCAAGAGGACAGGAGTGGCGGTGCAGCCGACAGCTGGAGATGTGACG	3660
Db	3601	TTTCTTACGAGGCGCAAGAGGACAGGAGTGGCGGTGCAGCCGACAGCTGGAGATGTGACG	3660
QY	3661	CGCTCTAGGGGCTTACAGAGGAGGGGTTAAAGCTGCCGCGCACAGAACTTAAAGATGGAGCCA	3720
Db	3661	CGCTCTAGGGGCTTACAGAGGAGGGGTTAAAGCTGCCGCGCGCACAGAACTTAAAGATGGAGCCA	3720
QY	3721	GCTCTGCATTATCTGAGAGTACAGAGGCTCGGGGAGATGAGAGAAAGTATATCCCGACG	3780
Db	3721	GCTCTGCATTATCTGAGAGTACAGAGGCTCGGGGAGATGAGAGAAAGTATATCCCGACG	3780
QY	3781	CTCAAGTCTTATTTCTTCTCAACGTTGCTCCCATCAAGGCTTTACTTGACCTCTTAACA	3840
Db	3781	CTCAAGTCTTATTTCTTCTCAACGTTGCTCCCATCAAGGCTTTACTTGACCTCTTAACA	3840
QY	3841	GTACACCCCGAGTATGAGAGGCTCTCTCTCAAAATGGGGGCTCCCTGTCCTTG	3900
Db	3841	GTACACCCCGAGTATGAGAGGCTCTCTCTCAAAATGGGGGCTCCCTGTCCTTG	3900
QY	3901	AGACAAATTTTAAATGACGAGCTCGGAGAGTGGGTGAATAATGAGTCTGCTGGAGT	3960
Db	3901	AGACAAATTTTAAATGACGAGCTCGGAGAGTGGGTGAATAATGAGTCTGCTGGAGT	3960
QY	3961	GCACCACTTCAAGTACACACAGAGGTGCTATGCAACACTGTGATTTAACTGCTTGG	4020
Db	3961	GCACCACTTCAAGTACACACAGAGGTGCTATGCAACACTGTGATTTAACTGCTTGG	4020
QY	4021	TGACAGATTATTTATGCGCTGTATTTTAAATACTAACACCCAGCTGTGTTCCCATGCGC	4080
Db	4021	TGACAGATTATTTATGCGCTGTATTTTAAATACTAACACCCAGCTGTGTTCCCATGCGC	4080

QY 4081 ACTGGGCTCTTCCCTGATGATGAGATATTTACATGATTCATTTACTT 4140
 DB 4081 ACTGGGCTCTTCCCTGATGATGAGATATTTACATGATTCATTTACTT 4140
 QY 4141 TAATC 4145
 DB 4141 TAATC 4145

RESULT 4
 AAH47959
 ID AAH47959 standard; cDNA: 4145 BP.
 AC AAH47959;
 DT 02-OCT-2001 (first entry)

XX Human inducible nitric oxide synthase encoding cDNA 1.
 DE
 XX Antisense oligonucleotide; inducible nitric oxide synthase;
 KW modulate expression; immunomodulator; antidiabetic; cardiovascular;
 KW cardiatic; neuroprotective; vasotropic; ischaemia; reperfusion injury;
 KW 2'-O-methoxyethyl; phosphorothioate; human; ss.
 OS Homo sapiens.

XX Key Location/Qualifiers
 FH CDS 207..3668
 FT /*tag= a
 FT /product= "inducible nitric oxide synthase"
 PN MO200152902-A1.
 XX 26-JUL-2001.
 PD 15-JAN-2001; 2001MO-US01381.
 PF 24-JAN-2000; 2000US-0490208.
 PR (ISIS-) ISIS PHARM INC.
 PA Bennett CF, Dean NM, Cowser LM;
 PI WPI: 2001-465340/50.
 XX P-PSDB: AAG64497.
 DR
 DR New antisense oligonucleotides for modulating the expression of
 XX inducible nitric oxide synthase in cells or tissues, particularly
 PT useful for treating e.g. immunological, cardiovascular or neurological
 PT disorders, or ischaemia
 PS Example 13; Page 92-97; 144pp; English.

XX The invention relates to antisense compounds, especially
 CC oligonucleotides, which are targeted to a nucleic acid encoding inducible
 CC nitric oxide synthase and which specifically hybridise to and modulate
 CC expression of inducible nitric oxide synthase. The antisense compounds
 CC have immunomodulator, antidiabetic, cardiovascular, cardiac
 CC neuroprotective, disorder and vasotropic activity. The antisense
 CC oligonucleotides are useful for inhibiting the expression of inducible
 CC nitric oxide synthase in cells or tissues. In particular, the antisense
 CC oligonucleotides are useful for treating diseases or disorders associated
 CC with inducible nitric oxide synthase, e.g. diabetes, immunological
 CC disorder, cardiovascular disorder, neurological disorder or
 CC ischaemia/reperfusion injury. The antisense oligonucleotides are also
 CC useful for research and diagnostics. The present sequence is that of
 CC human inducible nitric oxide synthase (GenBank accession number U09210).
 XX

SO Sequence 4145 BP; 968 A; 1203 C; 1126 G; 848 T; 0 other;
 Query Match 100.0%; Score 4145; DB 22; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTAAATCTCTGCGCACCTTTGATGAGGGAGTGGGAGTTCTAGACAGTCCG 60
 DB 1 CTGCTTAAATCTCTGCGCACCTTTGATGAGGGAGTGGGAGTTCTAGACAGTCCG 60
 QY 61 AAGTTCACAGGACAGAGTCTCTGCTGTTGACTGTCTTACCCCGGGAGGAGTGC 120
 DB 61 AAGTTCACAGGACAGAGTCTCTGCTGTTGACTGTCTTACCCCGGGAGGAGTGC 120
 QY 121 AGCCAGCTGCAGGCCACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTACATTA 180
 DB 121 AGCCAGCTGCAGGCCACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTACATTA 180
 QY 181 GTGACCTGCTTTGTAAGCCATAGAGATGGCTGTCTTGGAAATTTCTGTTAAGACA 240
 DB 181 GTGACCTGCTTTGTAAGCCATAGAGATGGCTGTCTTGGAAATTTCTGTTAAGACA 240
 QY 241 AATTCACACAGTATGCAATGATGGGGAAGAAACATCAACAAATGTGAGAGAAAGCC 300
 DB 241 AATTCACACAGTATGCAATGATGGGGAAGAAACATCAACAAATGTGAGAGAAAGCC 300
 QY 301 CCTGTCCACCTCCAGTCCAGTGAACAGAGATGACCTTCAGTATCCAACTCAGAGC 360
 DB 301 CCTGTCCACCTCCAGTCCAGTGAACAGAGATGACCTTCAGTATCCAACTCAGAGC 360
 QY 361 AGCAGATGAGTCCCGCAGCCCTCTGAGAGAGGAGAAAGTCTCCAGATCTCTGG 420
 DB 361 AGCAGATGAGTCCCGCAGCCCTCTGAGAGAGGAGAAAGTCTCCAGATCTCTGG 420
 QY 421 TCAAGCTGATGCAACCCATTTGCTCCCGACGAGCTGTGAGATCAAAACTGGGCA 480
 DB 421 TCAAGCTGATGCAACCCATTTGCTCCCGACGAGCTGTGAGATCAAAACTGGGCA 480
 QY 481 GCGGATGACTTTCAGACACACTTCCATAGAGGCAAGGATTTTAACTTGCAGT 540
 DB 481 GCGGATGACTTTCAGACACACTTCCATAGAGGCAAGGATTTTAACTTGCAGT 540
 QY 541 CCAATCTTGGCTGGGGTCCATTATGACTCCCAAAATTTGACAGAGAGCCAGGACA 600
 DB 541 CCAATCTTGGCTGGGGTCCATTATGACTCCCAAAATTTGACAGAGAGCCAGGACA 600
 QY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTACCAATATACG 660
 DB 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTACCAATATACG 660
 QY 661 GCTCCTTCAAGAGGCAAAATAGAGACATCTGGCGAGGAGGAGGTAACAAG 720
 DB 661 GCTCCTTCAAGAGGCAAAATAGAGACATCTGGCGAGGAGGAGGTAACAAG 720
 QY 721 AGATAGAAACAACAGAACCTTACCACTGACGGAGATGAGCTCATCTTGGCCACAAG 780
 DB 721 AGATAGAAACAACAGAACCTTACCACTGACGGAGATGAGCTCATCTTGGCCACAAG 780
 QY 781 AGCGTGGCGCAATGCCCCACGCTGATGGGAGAGATCGATGCAACCTGAGGTCT 840
 DB 781 AGCGTGGCGCAATGCCCCACGCTGATGGGAGAGATCGATGCAACCTGAGGTCT 840
 QY 841 TCGATGCCCCGAGCTGTTCCACTGCGCGGGAATGTTGAACACATCTGACAGACGTGC 900
 DB 841 TCGATGCCCCGAGCTGTTCCACTGCGCGGGAATGTTGAACACATCTGACAGACGTGC 900
 QY 901 GTTACTCCACCAACAAATGGAACATCAAGTGGGCAATCCGCTATGCTGGCTACACGA 1020
 DB 901 GTTACTCCACCAACAAATGGAACATCAAGTGGGCAATCCGCTATGCTGGCTACACGA 1020
 QY 961 ATGCAAGACGACATCTCCGGGTGGAGTGTCACTTATCCGCTATGCTGGCTACACGA 1080
 DB 961 ATGCAAGACGACATCTCCGGGTGGAGTGTCACTTATCCGCTATGCTGGCTACACGA 1080
 QY 1021 TGCAGATGAGCAGATCAGAGGGAGCCTGCCAAGCTGGAATTCAGTGTGCAATCG 1080
 DB 1021 TGCAGATGAGCAGATCAGAGGGAGCCTGCCAAGCTGGAATTCAGTGTGCAATCG 1080

OY	1081	CTGTGGGCGTGAAGGCCAAAGTAACGGCCGCTTGATGTGTGTCCTCCTGCAGAGGCCA	1140
Db	1081	ACCTGGGCTGGAAAGCCCAAGTAGAGGCGCTTGCATGTGTGTCCTCCTGCAGAGGCCA	1140
OY	1141	ATGGCCGTGACCCTAGGCTTTTCGAAAATCCCACCGACCTTGCTGTATAGGTGGGCATNG	1200
Db	1141	ATGGCCGTGACCCTAGGCTTTTCGAAAATCCCACCGACCTTGCTGTATAGGTGGGCATNG	1200
OY	1201	AACATCCCCAATTAGCATGTGTTTTGCGGAATGTGAAGCTTAAAGTGTAGGCCCTGCTCAG	1260
Db	1201	AACATCCCCAATTAGCATGTGTTTTGCGGAAMCTGGAGCTAAATGTGTAGGCCCTGCTCAG	1260
OY	1261	TGGCCAACATGCTGTTAGGTGGGGGGCCCTGGAGTTTCCAGGGTGGCCCTTCATAGCT	1320
Db	1261	TGGCCAACATGCTGTTAGGTGGGGGGCCCTGGAGTTTCCAGGGTGGCCCTTCATAGCT	1320
OY	1321	GGTACATGGGCACAGAGATCGGAGTCCGGAGCTTCTGTGAGTGCACAGCGCTACACATCC	1380
Db	1321	GGTACATGGGCACAGAGATCGGAGTCCGGAGCTTCTGTGAGTGCACAGCGCTACACATCC	1380
OY	1381	TGGAGGAAGTGGGAGGAGATGGGCGCTGGAAACGCAACAAGCTGGCTGCTCGAAG	1440
Db	1381	TGGAGGAAGTGGGAGGAGATGGGCGCTGGAAACGCAACAAGCTGGCTGCTCGAAG	1440
OY	1441	ACCAGGCTGTGCTTGAGATCAAACCTTCGTGATCCATAGTTTTCAAAAGCAAAATGTGA	1500
Db	1441	ACCAGGCTGTGCTTGAGATCAAACCTTCGTGATCCATAGTTTTCAAAAGCAAAATGTGA	1500
OY	1501	CCATCATGGAACCAACCACTCGGCTGCGAGAATCTTCATGAAGTACATGCACAGATGATAC	1560
Db	1501	CCATCATGGAACCAACCACTCGGCTGCGAGAATCTTCATGAAGTACATGCACAGATGATAC	1560
OY	1561	GGTCCGCTGGGGGCTGGCCGGCAGACTGGATTGGCTGCTCCCTCCATGCTGGGAGCA	1620
Db	1561	GGTCCGCTGGGGGCTGGCCGGCAGACTGGATTGGCTGCTCCCTCCATGCTGGGAGCA	1620
OY	1621	TCAACCCCGTGTTCACACAGGAATGCTGTAACAGCCGTGCCCTTCTACTACTATAC	1680
Db	1621	TCAACCCCGTGTTCACACAGGAATGCTGTAACAGCCGTGCCCTTCTACTACTATAC	1680
OY	1681	AGGTAGAGGCTTGGAAAAACCATGCTGTGCGACGAGAGAAGCGGAGACCCAGAGAAGAG	1740
Db	1681	AGGTAGAGGCTTGGAAAAACCATGCTGTGCGACGAGAGAAGCGGAGACCCAGAGAAGAG	1740
OY	1741	AGATTCCATTGAAGAAGCTTGTCGAAGCTGTGCTCTTTGCGCTGTATGCTGATGGCAGAGA	1800
Db	1741	AGATTCCATTGAAGAAGCTTGTCGAAGCTGTGCTCTTTGCGCTGTATGCTGATGGCAGAGA	1800
OY	1801	CAATGCGCTCCGAGTCAGAGTCAACCATCTTTTTCGACAAGACAGAGAAAATCAGAGG	1860
Db	1801	CAATGCGCTCCGAGTCAGAGTCAACCATCTTTTTCGACAAGACAGAGAAAATCAGAGG	1860
OY	1861	CCTGGGCTTGGGACCTGGGGGGCCTTATTCAGTGTGECCTTCAACCCCAAGTGTGCTGCA	1920
Db	1861	CCTGGGCTTGGGACCTGGGGGGCCTTATTCAGTGTGECCTTCAACCCCAAGTGTGCTGCA	1920
OY	1921	TGGATTAGTACAGGCTGACCTGCTGCGAGSAGSAGAACGGCTGTGTTGGTGTGACACAGTA	1980
Db	1921	TGGATTAGTACAGGCTGACCTGCTGCGAGSAGSAGAACGGCTGTGTTGGTGTGACACAGTA	1980
OY	1981	CSTTTGGCAATGAGACTGCCCCTGGCAATGAGAGAAACTGAAGAAATCGCTTCCTACATGC	2040
Db	1981	CSTTTGGCAATGAGACTGCCCCTGGCAATGAGAGAAACTGAAGAAATCGCTTCCTACATGC	2040
OY	2041	TGAAGAAGCTCAACAACAATTCAGGTACGCTGTGTTGGCTCGGGCTCCAGCATGTACC	2100
Db	2041	TGAAGAAGCTCAACAACAATTCAGGTACGCTGTGTTGGCTCGGGCTCCAGCATGTACC	2100
OY	2101	CTCGGTTCTGGGCCCTTGTGCTATGACATTTGATNANAGAACTGTCCCACTGGGGGCTCTC	2160
Db	2101	CTCGGTTCTGGGCCCTTGTGCTATGACATTTGATNANAGAACTGTCCCACTGGGGGCTCTC	2160
OY	2161	AGCTTACCCCGATGGGAGAGGGGATGTAGCTCAGTGGGCGAGGAGACCCCTTCCGAGACT	2220

Db	2161	AGCTCACCCGATGGGAGAGAGGAGTGAAGCTCAGTGGGACAGAGAGAGCGCTTCGCGAGCT	2220
Qy	2221	GGGCGCTGCAAACCTTCAAGGACGCTGTGAGAGCTTTGATGTGCCAGGCAAAAGACAA	2280
Db	2221	GGGCGCGGCAAAACCTTCAAGGACGCGCTGTGAGAGGTTTGAATGTCCGAGGCAAAAGACAA	2280
Qy	2281	TTGAGATCCCAAGGCTCTACACTCTCCATGTGAGTGGAGCCCGGACCACTACAGCTCG	2340
Db	2281	TTGAGATCCCAAGGCTCTACACTCTCAATGTGAGTGGAGCCCGGACCACTACAGGCTCG	2340
Qy	2341	TGCAGAGACTACAGGCTTTGGACCTCAGCAAAAGCCCTCAGACAGCTGATGTGCAGAAAGC	2400
Db	2341	TGCAGAGACTACAGGCTTTGGACCTCAGCAAAAGCCCTCAGACAGCTGATGTGCAGAAAGC	2400
Qy	2401	TGTTCCACCAATGAGGCGCAAAATCTGGGAGAAATCTACAAATCCGACATCCAGCGCTGCCA	2460
Db	2401	TGTTCCACCAATGAGGCTCAAAATCTGGGAGAAATCTACAAATCCGACATCCAGCGCTGCCA	2460
Qy	2461	CCATCCTGGTGGAACTCTCTGTGAGGATGGCCCAAGGCTCGAATCTCTGCGGGGAGGC	2520
Db	2461	CCATCCTGGTGGAACTCTCTGTGAGGATGGCCCAAGGCTCGAATCTCTGCGGGGAGGC	2520
Qy	2521	ACCTTGGGGTTTGGCCAGGCAACAGCCGCGCCTGTGTCAAAGGACTCTGAGAGCGAGTGG	2580
Db	2521	ACCTTGGGGTTTGGCCAGGCAACAGCGCGCCCTGTGTCAAAGGACTCTGAGAGCGAGTGG	2580
Qy	2581	TGGATGGCCCCACACCCGACAGACTGGGCGCTGGAGGACCTGGATGAGAGTGGCAGCT	2640
Db	2581	TGGATGGCCCCACACCCGACAGACTGGGCGCTGGAGGACCTGGATGAGAGTGGCAGCT	2640
Qy	2641	ACTGGGTCAGTACAAAGGCGTGGCCCCCTGCTCACTCAGCCAGGACCCCTCACTACTGCC	2700
Db	2641	ACTGGGTCAGTACAAAGGCGTGGCCCCCTGCTCACTCAGCCAGGACCCCTCACTACTGCC	2700
Qy	2701	CGGACATCACCAACCCCAACCCAGCTGTGTCTCCAAAAGCTGGCCAGGTGGCCACAG	2760
Db	2701	CGGACATCACCAACCCCAACCCAGCTGTGTCTCCAAAAGCTGGCCAGGTGGCCACAG	2760
Qy	2761	AAGAGCCTGAGAGAGACAGAGGTGGAGGCCCTGTGCCAGCCCTCAGATGACAGCAAGTGA	2820
Db	2761	AAGAGCCTGAGAGAGACAGAGGTGGAGGCCCTGTGCCAGCCCTCAGATGACAGCAAGTGA	2820
Qy	2821	AATTACCAACAGGCCCCCAKATTTCTTGGAGGTGCTAGAGAGTTCCCGTCCGCGGGTGT	2880
Db	2821	AATTACCAACAGGCCCCCAKATTTCTTGGAGGTGCTAGAGAGTTCCCGTCCGCGGGTGT	2880
Qy	2881	CTGTGGCTTCTCTTTCACAGCTCCCATCTCTGAAGCCAGGTTCTACTCATCAAGCT	2940
Db	2881	CTGTGGCTTCTCTTTCACAGCTCCCATCTCTGAAGCCAGGTTCTACTCATCAAGCT	2940
Qy	2941	CCTCCCGGATCACAGGCCCAAGAGATCCACTGACTGTGAGCCGTGATCACTTACCACA	3000
Db	2941	CCTCCCGGATCACAGGCCCAAGAGATCCACTGACTGTGAGCCGTGATCACTTACCACA	3000
Qy	3001	CGGAGATGGGACAGGGTCCCTGCACACAGGGTGTGGAGACATGGCTAAAGCTTGA	3060
Db	3001	CGGAGATGGGACAGGGTCCCTGCACACAGGGTGTGGAGACATGGCTTAAACAGCTTGA	3060
Qy	3061	AGCCCCAAGACCAAGTCCCTGTGTTGTGGGAATGCCAGGCGCTTCCACTCCCGGAG	3120
Db	3061	AGCCCCAAGACCAAGTCCCTGTGTTGTGGGAATGCCAGGCGCTTCCACTCCCGGAG	3120
Qy	3121	ATTCCTCCCATCTCTGATCTCTATCGGCGCTGGACACAGGCATCTGCTCCGCAATT	3180
Db	3121	ATTCCTCCCATCTCTGATCTCTATCGGCGCTGGACACAGGCATCTGCTCCGCAATT	3180
Qy	3181	TCTTGGCAGCAAGGCTCTATGACTCCACAGCAAGGAGTGGCGGGAGGCGGATGACT	3240
Db	3181	TCTTGGCAGCAAGGCTCTATGACTCCACAGCAAGGAGTGGCGGGAGGCGGATGACT	3240
Qy	3241	TGTGTTTGGGTGCGCGGCCAGATGAGGAGCAACATCTACAGAGGAGATCTTGAGAGA	3300

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Db 3241 TGGTGTGGGTGCGCCGCCAGATGAGACACATCTACAGAGAGAGATGCTGAGAGA 3300
Qy 3301 TGGCCAGAGAGGGGGTGGTGCATGCGGTGCACACAGACCTATTCGGCTGGCTGGCAGC 3360
Db 3301 TGGCCAGAGAGGGGGTGGTGCATGCGGTGCACACAGACCTATTCGGCTGGCTGGCAGC 3360
Qy 3361 CCAGGCTCATGTTGACAGACATCTGCGGACAGCTGGCCAGCGAGGTGCTCCGTGTGC 3420
Db 3361 CCAGGCTCATGTTGACAGACATCTGCGGACAGCTGGCCAGCGAGGTGCTCCGTGTGC 3420
Qy 3421 TCCACAGAGAGCCAGCCACCTCTATGTTTGGGGGAGTGGCGCATGGCCGGAGCAGTGG 3480
Db 3421 TCCACAGAGAGCCAGCCACCTCTATGTTTGGGGGAGTGGCGCATGGCCGGAGCAGTGG 3480
Qy 3481 CCCAGACCTGAGAGAGCTGTGTGGTCCCAACCTGAATTTGATGAGAGAGAGTGCAGAG 3540
Db 3481 CCCAGACCTGAGAGAGCTGTGTGGTCCCAACCTGAATTTGATGAGAGAGAGTGCAGAG 3540
Qy 3541 ACTATTTCTTTTCACTCAAGAGCCAGAAAGCGCTATCAGCAAGATATCTTGGTGTGTAT 3600
Db 3541 ACTATTTCTTTTCACTCAAGAGCCAGAAAGCGCTATCAGCAAGATATCTTGGTGTGTAT 3600
Qy 3601 TTTCTTACAGAGCGAAGAGAGAGAGGCGGTGGCGGTGCAGCCAGCCTGGAGATGTAG 3660
Db 3601 TTTCTTACAGAGCGAAGAGAGAGAGGCGGTGGCGGTGCAGCCAGCCTGGAGATGTAG 3660
Qy 3661 CGCTCTGAGAGGCTCTACAGAGAGGGTTAAAGCTCCGCGCACAGAACTTAAGATGGAGCCA 3720
Db 3661 CGCTCTGAGAGGCTCTACAGAGAGGGTTAAAGCTCCGCGCACAGAACTTAAGATGGAGCCA 3720
Qy 3721 GCTTGACATTTCTGAGGTACAGAGGGCTGGGGAGATGAGAGAAAGTATATCCCGCAGC 3780
Db 3721 GCTTGACATTTCTGAGGTACAGAGGGCTGGGGAGATGAGAGAAAGTATATCCCGCAGC 3780
Qy 3781 CTCAGTCTTATTTCTTCCCTCAAGCTTGTCCCATCAAGCCCTTACTGACTCTCTAAATAA 3840
Db 3781 CTCAGTCTTATTTCTTCCCTCAAGCTTGTCCCATCAAGCCCTTACTGACTCTCTAAATAA 3840
Qy 3841 GTAGACACCTGATGATGAGAGCTCTCTCTCAAACTGGGGCTCCCTGGTCCCTTGG 3900
Db 3841 GTAGACACCTGATGATGAGAGCTCTCTCTCTCAAACTGGGGCTCCCTGGTCCCTTGG 3900
Qy 3901 AGACAAATCTTAATGCGCAGGCTGCGGAGTGGGTGAAGATGAGACTTGGCTGTGAGT 3960
Db 3901 AGACAAATCTTAATGCGCAGGCTGCGGAGTGGGTGAAGATGAGACTTGGCTGTGAGT 3960
Qy 3961 GCACCACTTCAAGTACACACAGAGAGTGTATGTCACACACTGTGTATTTAACTGCTTG 4020
Db 3961 GCACCACTTCAAGTACACACAGAGAGTGTATGTCACACACTGTGTATTTAACTGCTTG 4020
Qy 4021 TGTACAGTTATTTATGCTCTGTATTTAAAAAACTAACACCCAGTCTGTCCCATGGCC 4080
Db 4021 TGTACAGTTATTTATGCTCTGTATTTAAAAAACTAACACCCAGTCTGTCCCATGGCC 4080
Qy 4081 ACTGGGCTTCCCTGATGATGATCTCTTGTATGAGATGATTTACATGATTTGATTTACTT 4140
Db 4081 ACTGGGCTTCCCTGATGATGATCTCTTGTATGAGATGATTTACATGATTTGATTTACTT 4140
Qy 4141 TAATC 4145
Db 4141 TAATC 4145

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RESULT 5
AAH47966
ID AAH47966 standard; cDNA: 4145 BP.
XX
AC AAH47966;
XX
XX 02-OCT-2001 (first entry)
XX
DE Mouse inducible nitric oxide synthase encoding cDNA 1.
XX

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KW Antisense oligonucleotide; inducible nitric oxide synthase;
KM modulate expression; immunomodulator; antidiabetic; cardiovascular;
KW cardiatic; neuroprotective; vasotropic; ischemia; reperfusion injury;
XX 2'-O-methoxyethyl; phosphorothioate; mouse; ss.
OS Mus sp.
FH Key location/Qualifiers
FT CDS 207..3668
FT /*tag= a
FT /product= "Inducible nitric oxide synthase"
XX
XX W0200152902-A1.
XX
XX 26-JUL-2001.
XX
XX 15-JAN-2001; 2001MO-US01381.
XX
XX 24-JAN-2000; 2000US-0490208.
XX
XX (ISIS-) ISIS PHARM INC.
XX
XX Bennett CF, Dean NM, Cowsett LM,
XX WPI; 2001-465340/50.
XX
XX P-PSDB; AAG64498.
XX
XX
XX New antisense oligonucleotides for modulating the expression of
PT inducible nitric oxide synthase in cells or tissues, particularly
PT useful for treating e.g. immunological, cardiovascular or neurological
PT disorders, or ischemia
XX
XX Example 13; Page 98-103; 144pp; English.
XX
XX The invention relates to antisense compounds, especially
CC oligonucleotides, which are targeted to a nucleic acid encoding inducible
CC nitric oxide synthase and which specifically hybridize to and modulate
CC expression of inducible nitric oxide synthase. The antisense compounds
CC have immunomodulator, antidiabetic, cardiovascular, cardiatic,
CC neuroprotective, disorder and vasotropic activity. The antisense
CC oligonucleotides are useful for inhibiting the expression of inducible
CC nitric oxide synthase in cells or tissues. In particular, the antisense
CC oligonucleotides are useful for treating diseases or disorders associated
CC with inducible nitric oxide synthase, e.g. diabetes, immunological
CC disorder, cardiovascular disorder, neurological disorder or
CC ischaemia/reperfusion injury. The antisense oligonucleotides are also
CC useful for research and diagnostics. The present sequence is that of
CC mouse inducible nitric oxide synthase (Genbank accession number M92649).
XX
XX
XX Sequence 4145 BP; 968 A; 1203 C; 1126 G; 848 T; 0 other;
SQ
Query Match 100.0%; Score 4145; DB 22; Length 4145;
Best Local Similarity 100.0%; Pred No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 CTGCTTTAAATCTCTCGGCCACCTTGTATGAGGGAGCTGGAGTTCAGACAGTCCG 60
Db 1 CTGCTTTAAATCTCTCGGCCACCTTGTATGAGGGAGCTGGAGTTCAGACAGTCCG 60
Qy 61 AAGTTCGAAGGACAGAGTCTTCTGCTTGAAGTCTTACCTTACCCCGGGAGGAGTGC 120
Db 61 AAGTTCGAAGGACAGAGTCTTCTGCTTGAAGTCTTACCTTACCCCGGGAGGAGTGC 120
Qy 121 AGCAGCTGCAAGGCCACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTACATTA 180
Db 121 AGCAGCTGCAAGGCCACAGTGAAGACATCTGAGCTCAATCCAGATTAAGTACATTA 180
Qy 181 GTGACCTGCTTTGTAAGCCATAGAGATGAGCTGCTCGTGAATTTCTGTTCAAGACA 240
Db 181 GTGACCTGCTTTGTAAGCCATAGAGATGAGCTGCTCGTGAATTTCTGTTCAAGACA 240
Qy 241 AATTCCACCGATGACATGATGGGAAAAGACATCAACAATGTTGAGAGAAAGCC 300
Db 241 AATTCCACCGATGACATGATGGGAAAAGACATCAACAATGTTGAGAGAAAGCC 300

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Db 241 AATTCCACCAGTATGCAATGAAATGGGGAAAAAGACATCAACACATGTGGAGAAAGCCC 300
Qy 301 CCTGTGCCACCTTCAGTCAGTACAGAGATGACCTTCAGTATCACACCTCCAGCAGC 360
Db 301 CCTGTGCCACCTTCAGTCAGTACAGAGATGACCTTCAGTATCACACCTCCAGCAGC 360
Qy 361 AGCAGAAATGATCCCCGAGCCCTGCTGAGACCGGGAAGAGTCTCCAGATCTCTG 420
Db 361 AGCAGAAATGATCCCCGAGCCCTGCTGAGACCGGGAAGAGTCTCCAGATCTCTG 420
Qy 421 TCAAGCTGATGATCAACCCCATTTGCTCTCCACAGCATGTAGATCAAAAATGAGGCA 480
Db 421 TCAAGCTGATGATCAACCCCATTTGCTCTCCACAGCATGTAGATCAAAAATGAGGCA 480
Qy 481 GCGGGATGATTTCCAAAGACACTTCAACATAGGCGCAAGGGATTTTAATCTGCAAGT 540
Db 481 GCGGGATGATTTCCAAAGACACTTCAACATAGGCGCAAGGGATTTTAATCTGCAAGT 540
Qy 541 CCAAAATCTTGCTGGGGTCCATTTATGACTCCCAAAAGTTTGACAGAGAGCCAGGGACA 600
Db 541 CCAAAATCTTGCTGGGGTCCATTTATGACTCCCAAAAGTTTGACAGAGAGCCAGGGACA 600
Qy 601 ACCCTACCCCTCAGATGAGCTTCTACTCAAGCTATGGAATTTGTCAACCAATTTACG 660
Db 601 ACCCTACCCCTCAGATGAGCTTCTACTCAAGCTATGGAATTTGTCAACCAATTTACG 660
Qy 661 GCTCCTTCAAAAGAGCAAAATAGAGAAATCTGCGCAGGGGTGGAAGCGGTAACAAAG 720
Db 661 GCTCCTTCAAAAGAGCAAAATAGAGAAATCTGCGCAGGGGTGGAAGCGGTAACAAAG 720
Qy 721 AGATGAAAACAACAGAACTTACCACTGAGCGGAGATGAGCTCATCTTCCCAACCAAG 780
Db 721 AGATGAAAACAACAGAACTTACCACTGAGCGGAGATGAGCTCATCTTCCCAACCAAG 780
Qy 781 AGGCGTGGCGCAATGCGCCAGCGTGCATTTGGAGAGATGCAATGTCACCACTGAGCT 840
Db 781 AGGCGTGGCGCAATGCGCCAGCGTGCATTTGGAGAGATGCAATGTCACCACTGAGCT 840
Qy 841 TCGATGCGCGGAGCTGCTTCACTGCGCGGGAATTTGAACACATCTGACAGACGCTG 900
Db 841 TCGATGCGCGGAGCTGCTTCACTGCGCGGGAATTTGAACACATCTGACAGACGCTG 900
Qy 901 GTTACTCCACACATGAGCAATGAGTGGCCATCAGCGTGTCTCCCAAGCGGAGTG 960
Db 901 GTTACTCCACACATGAGCAATGAGTGGCCATCAGCGTGTCTCCCAAGCGGAGTG 960
Qy 961 ATGGCAAGACAGACTTCGCGGGTGGGAATGCTCAGCTCATCCGCTATGCTGGTACAGA 1020
Db 961 ATGGCAAGACAGACTTCGCGGGTGGGAATGCTCAGCTCATCCGCTATGCTGGTACAGA 1020
Qy 1021 TGGCAGATGAGAGCAATCAGAGAGGAGCCCTGCAACAGTGAATTCACAGCTGTGATCG 1080
Db 1021 TGGCAGATGAGAGCAATCAGAGAGGAGCCCTGCAACAGTGAATTCACAGCTGTGATCG 1080
Qy 1081 ACCTGGGCTGGAAGCCCAAGTACGCGCTTGAATGATGCTGCTCCCTGCTCGAGGCA 1140
Db 1081 ACCTGGGCTGGAAGCCCAAGTACGCGCTTGAATGATGCTGCTCCCTGCTCGAGGCA 1140
Qy 1141 ATGGGCGTGAACCTTCTGCAAAATCCACCTGAGCTTGTGTTAGGTGAGGCAATGG 1200
Db 1141 ATGGGCGTGAACCTTCTGCAAAATCCACCTGAGCTTGTGTTAGGTGAGGCAATGG 1200
Qy 1201 AACATCCCAATAGAGTGGTTTGGGAATGAGAGCTAAAGTGGTACGCTGGCTGGAG 1260
Db 1201 AACATCCCAATAGAGTGGTTTGGGAATGAGAGCTAAAGTGGTACGCTGGCTGGAG 1260
Qy 1261 TGGCCAAATGCTGCTTGAAGTGGGCGGCTGAGATTCACAGGGGCGCCCTTCATGCT 1320
Db 1261 TGGCCAAATGCTGCTTGAAGTGGGCGGCTGAGATTCACAGGGGCGCCCTTCATGCT 1320
Qy 1321 GGTACATGGGCAAGAGATCGAGTCCGGGACTTCTGTGAGCTCCAGCGCTACAAATCC 1380
Db 1321 GGTACATGGGCAAGAGATCGAGTCCGGGACTTCTGTGAGCTCCAGCGCTACAAATCC 1380

Qy 1381 TGGAGAAATGGGAGAGAGATGGGCTGGAACGACAAAGCTGGCTCGCTGGAAG 1440
Db 1381 TGGAGAAATGGGAGAGAGATGGGCTGGAACGACAAAGCTGGCTCGCTGGAAG 1440
Qy 1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGTGATCCATAGTTTTCAGAGCAAGATGTA 1500
Db 1441 ACCAGGCTGTGTTGAGATCAACATTTGCTGTGATCCATAGTTTTCAGAGCAAGATGTA 1500
Qy 1501 CCATCATGAGACCACTGCGGCTGCAAGATCCTTCAATGAATATCATGCAATGAATACC 1560
Db 1501 CCATCATGAGACCACTGCGGCTGCAAGATCCTTCAATGAATATCATGCAATGAATACC 1560
Qy 1561 GGTCCGCTGGGGCTGCGCGGAGAGCTGGAATTTGGTGGGCTCCCATGCTGGAGGA 1620
Db 1561 GGTCCGCTGGGGCTGCGCGGAGAGCTGGAATTTGGTGGGCTCCCATGCTGGAGGA 1620
Qy 1621 TCAACCCCGTGTTCACAGAGAGATGCTGAACATGCTGCTGCTTCTACTATATC 1680
Db 1621 TCAACCCCGTGTTCACAGAGAGATGCTGAACATGCTGCTGCTTCTACTATATC 1680
Qy 1681 AGGTAGAGGCTTGGAAAAACCATGCTGCGAGAGACAGAAAGCGGAGACCAAGAGAAAG 1740
Db 1681 AGGTAGAGGCTTGGAAAAACCATGCTGCGAGAGACAGAAAGCGGAGACCAAGAGAAAG 1740
Qy 1741 AGATTCATGAAAGCTTGTGCAAAAGCTGCTTGTGCTGTATGCTGATGCGCAAG 1800
Db 1741 AGATTCATGAAAGCTTGTGCAAAAGCTGCTTGTGCTGTATGCTGATGCGCAAG 1800
Qy 1801 CAATGGGCTCCGAGTACAGAGTCAACATCTCTTTCAGAGAGACAGAAATACAGAG 1860
Db 1801 CAATGGGCTCCGAGTACAGAGTCAACATCTCTTTCAGAGAGACAGAAATACAGAG 1860
Qy 1861 CGCTGGCTGGAGCTGCGGGGCTTATGACAGCTGCTTCAACCCCAAGTGTCTGA 1920
Db 1861 CGCTGGCTGGAGCTGCGGGGCTTATGACAGCTGCTTCAACCCCAAGTGTCTGA 1920
Qy 1921 TGGTAAGTACAGCTGAGCTGCTGAGAGAGAAAGGCTGCTGTTGTGTGACAGTA 1980
Db 1921 TGGTAAGTACAGCTGAGCTGCTGAGAGAGAAAGGCTGCTGTTGTGTGACAGTA 1980
Qy 1981 CGTTTGGCAATGAGAGCTGCTGAGAGAGAAAGTGAAGAAATGCTCTTCAATG 2040
Db 1981 CGTTTGGCAATGAGAGCTGCTGAGAGAGAAAGTGAAGAAATGCTCTTCAATG 2040
Qy 2041 TGAAGAGCTCAACCAAAATGAGTACGCTGTTTGGCGCTCGGCTCAGCATGTACC 2100
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Qy 2101 CTGCGTCTGCGCTTGTGCTGATGATGATGAGAGCTGTCACCTGGGGGCTCTC 2160
Db 2101 CTGCGTCTGCGCTTGTGCTGATGATGATGAGAGCTGTCACCTGGGGGCTCTC 2160
Qy 2161 AGCTCACCCGATGGAGAGAGGAGATGAGTCACTAGTGGCAGAGAGCTTCCGAGCT 2220
Db 2161 AGCTCACCCGATGGAGAGAGGAGATGAGTCACTAGTGGCAGAGAGCTTCCGAGCT 2220
Qy 2221 GGGCGGTGCAACCTTCAAGGAGCGCTGAGAGCTTATGATGCGAGGCAAAAGCACA 2280
Db 2221 GGGCGGTGCAACCTTCAAGGAGCGCTGAGAGCTTATGATGCGAGGCAAAAGCACA 2280
Qy 2281 TTCAGATCCCAAGCTCTACACTCAATGTGACTGCGGAGCCGACACTACAGGCTG 2340
Db 2281 TTCAGATCCCAAGCTCTACACTCAATGTGACTGCGGAGCCGACACTACAGGCTG 2340
Qy 2341 TGCAGGACTCAGACCTTTGACCTCAGCAAAAGCCTTCAGAGCATGATGCAAGAAAG 2400
Db 2341 TGCAGGACTCAGACCTTTGACCTCAGCAAAAGCCTTCAGAGCATGATGCAAGAAAG 2400
Qy 2401 TGTTCACATGAGGCTCAAAATCTGCGAGCAATTAAGTCCGATCCAGCCGCTGCA 2460
Db 2401 TGTTCACATGAGGCTCAAAATCTGCGAGCAATTAAGTCCGATCCAGCCGCTGCA 2460

QY 2461 CCATCCTGGTGAACCTCTCTGTGAGATGAGCCAAAGCCCTGAACCTACCTGCCGGGGAGC 2520
 Db 2461 CCATCCTGGTGAACCTCTCTGTGAGATGAGCCAAAGCCCTGAACCTACCTGCCGGGGAGC 2520
 QY 2521 ACCCTGGGGTTTGCCAGGCAACAGCCGGCCCTGTGTCACAGCATCTCTGAGCGAGTGG 2580
 Db 2521 ACCCTGGGGTTTGCCAGGCAACAGCCGGCCCTGTGTCACAGCATCTCTGAGCGAGTGG 2580
 QY 2581 TGGATGGCCCCACACCCCAACAGAGTGGCTGTGAGAGACTGGATGAGATGGCAGCT 2640
 Db 2581 TGGATGGCCCCACACCCCAACAGAGTGGCTGTGAGAGACTGGATGAGATGGCAGCT 2640
 QY 2641 ACTGGGTGATGACAAAGAGAGGCTGCCCCCTGTCTCACTAGCCAGGCCCCCTCACTCTCC 2700
 Db 2641 ACTGGGTGATGACAAAGAGAGGCTGCCCCCTGTCTCACTAGCCAGGCCCCCTCACTCTCC 2700
 QY 2701 CGGACATCAACACACCCCAACAGCTGCTGTCCAAAAGCTGGGCCAGTGGCCACAG 2760
 Db 2701 CGGACATCAACACACCCCAACAGCTGCTGTCCAAAAGCTGGGCCAGTGGCCACAG 2760
 QY 2761 AAGAGCTGAGAGACAGAGAGCTGGAGCCCTGTGCGAGCCCTCAAGTACAGAGTGA 2820
 Db 2761 AAGAGCTGAGAGACAGAGAGCTGGAGCCCTGTGCGAGCCCTCAAGTACAGAGTGA 2820
 QY 2821 AGTTACCAACAGCCCAACATTCCTGGAGGTGCTAGAGAGTTCCTGCTCCCTGCGGGTGT 2880
 Db 2821 AGTTACCAACAGCCCAACATTCCTGGAGGTGCTAGAGAGTTCCTGCTCCCTGCGGGTGT 2880
 QY 2881 CTGCTGGCTTCCTGCTTCCTCCAGCTCCCAATCTGAAGCCCAAGTTCTACTCCATCAGCT 2940
 Db 2881 CTGCTGGCTTCCTGCTTCCTCCAGCTCCCAATCTGAAGCCCAAGTTCTACTCCATCAGCT 2940
 QY 2941 CCTCCCGGGATGACAGAGCCCAAGAGATCCACTGACTGTGGCCCTGTGCTACCTACACA 3000
 Db 2941 CCTCCCGGGATGACAGAGCCCAAGAGATCCACTGACTGTGGCCCTGTGCTACCTACACA 3000
 QY 3001 CCGAGATGAGCAGAGGTTCCTGACACAGGTGTCTGACAGCATGGCTCAACAGCCTGA 3060
 Db 3001 CCGAGATGAGCAGAGGTTCCTGACACAGGTGTCTGACAGCATGGCTCAACAGCCTGA 3060
 QY 3061 AGCCCAAGACAGAGTGGCCCTGTTTGTGGGAATGCCAGGCCCTTTCACCTGCCGAGG 3120
 Db 3061 AGCCCAAGACAGAGTGGCCCTGTTTGTGGGAATGCCAGGCCCTTTCACCTGCCGAGG 3120
 QY 3121 ATCCCTCCATCTCTGATCTCTATCGGGCTGTGGCAAGGCATCTGCTCCGAGTT 3180
 Db 3121 ATCCCTCCATCTCTGATCTCTATCGGGCTGTGGCAAGGCATCTGCTCCGAGTT 3180
 QY 3181 TCTGGCAGCAAGCGCTCCATGACTCCAGACAAGGAGTGGCGGAGGCGCGATGACCT 3240
 Db 3181 TCTGGCAGCAAGCGCTCCATGACTCCAGACAAGGAGTGGCGGAGGCGCGATGACCT 3240
 QY 3241 TGGTGTGGGTGCGCCGCCAGATGAGACCATCTACAGAGAGAGATGCTGGAGA 3300
 Db 3241 TGGTGTGGGTGCGCCGCCAGATGAGACCATCTACAGAGAGAGATGCTGGAGA 3300
 QY 3301 TGGTGTGGGTGCGCCGCCAGATGAGACCATCTACAGAGAGAGATGCTGGAGA 3360
 Db 3301 TGGTGTGGGTGCGCCGCCAGATGAGACCATCTACAGAGAGAGATGCTGGAGA 3360
 QY 3361 CCAAGGCTATGTTCAAGAGATCTCTGCGAGAGCTGGCGCAGAGTGTCTCCGTGTC 3420
 Db 3361 CCAAGGCTATGTTCAAGAGATCTCTGCGAGAGCTGGCGCAGAGTGTCTCCGTGTC 3420
 QY 3421 TCCACAAGAGAGCGCCATCTATGTTTGGGGGATGTGGCATGGCCGGGAGCTGG 3480
 Db 3421 TCCACAAGAGAGCGCCATCTATGTTTGGGGGATGTGGCATGGCCGGGAGCTGG 3480
 QY 3481 CCCAGACCCCTGAAGACAGCTGTGGCTGCCAAGCTGAATGATGAGAGACAGCTGAGG 3540
 Db 3481 CCCAGACCCCTGAAGACAGCTGTGGCTGCCAAGCTGAATGATGAGAGACAGCTGAGG 3540
 QY 3541 ACTATTTCTTCACTCAAGAGCAGAGGCTATCAGCAAGATATCTTGGTGTGAT 3600

Db 3541 ACTATTTCTTCACTCAAGAGCAGAGGCTATCAGCAAGATATCTTGGTGTGAT 3600
 QY 3601 TTCTTTCAGAGGCAAGAGAGAGAGGCTGGCGGTGACGCCAGCAGCTGAGATGTGAG 3660
 Db 3601 TTCTTTCAGAGGCAAGAGAGAGAGGCTGGCGGTGACGCCAGCAGCTGAGATGTGAG 3660
 QY 3661 CGCTGTAGGGGCTTACAGAGAGGCTTAAAGCTGCGGACAGAACTTAAAGATGAGGCA 3720
 Db 3661 CGCTGTAGGGGCTTACAGAGAGGCTTAAAGCTGCGGACAGAACTTAAAGATGAGGCA 3720
 QY 3721 GCTGTGATTTATCTAGAGTCAACAGAGGCTGGGAGATGAGAGAAATGATATCCAGC 3780
 Db 3721 GCTGTGATTTATCTAGAGTCAACAGAGGCTGGGAGATGAGAGAAATGATATCCAGC 3780
 QY 3781 CTCAAGCTTATTTCTCAGAGCTTGTCCCTATCAAGCCCTTACTGACCTCTAACA 3840
 Db 3781 CTCAAGCTTATTTCTCAGAGCTTGTCCCTATCAAGCCCTTACTGACCTCTAACA 3840
 QY 3841 GTAGACCCCTGATGATGAGAGGCTGCTCTCTCAAACTGGGGCTGCTGCTGCTGG 3900
 Db 3841 GTAGACCCCTGATGATGAGAGGCTGCTCTCTCTCAAACTGGGGCTGCTGCTGCTGG 3900
 QY 3901 AGACAAATCTTAAATGCGCAGGCTGGGAGTGGGTGAAGATGAACTTGCTGAGT 3960
 Db 3901 AGACAAATCTTAAATGCGCAGGCTGGGAGTGGGTGAAGATGAACTTGCTGAGT 3960
 QY 3961 GCACCACTTCAAGTACAGCAGAGAGTGTATGACACACTGTGTATTTACTGCTTG 4020
 Db 3961 GCACCACTTCAAGTACAGCAGAGAGTGTATGACACACTGTGTATTTACTGCTTG 4020
 QY 4021 TGTACAGTTATTTATGCTCTGTATTTTAAATCAACACCACTGCTGCTGAGG 4080
 Db 4021 TGTACAGTTATTTATGCTCTGTATTTTAAATCAACACCACTGCTGCTGAGG 4080
 QY 4081 ACTTGGCTTCTCCCTGATGATTCCTTGATGAGATATTTCAATGATTTACTT 4140
 Db 4081 ACTTGGCTTCTCCCTGATGATTCCTTGATGAGATATTTCAATGATTTACTT 4140
 QY 4141 TAATC 4145
 Db 4141 TAATC 4145
 RESULT 6
 AAF21450
 ID AAF21450 standard; DNA; 8222 BP.
 XX AAF21450;
 AC 14-MAR-2001 (first entry)
 DT 14-MAR-2001 (first entry)
 DE Human inducible nitric oxide synthase polynucleotide fragment #3017.
 KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
 KW human; airway disorder; bronchoconstriction; lung inflammation;
 KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
 KW immunosuppressive; antiallergic; analgesic; hypotensive; cytostatic;
 KW respiratory obstruction; pulmonary obstruction; impeded respiration;
 KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
 KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
 KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
 KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
 KW cancer; ss.
 XX Homo sapiens.
 OS WO200062736-A2.
 PN 26-OCT-2000.
 PD 24-MAR-2000; 2000WO-US08020.
 PF
 XX

PR 06-APR-1999: 9905-0127958.
 XX (UYEC-) UNIV EAST CAROLINA.
 PA (NYCE/) NYCE J W.
 XX
 PI Nyce JW;
 DR WPI: 2000-679539/66.
 XX
 PT Low adenosine (A) content antisense oligonucleotides which do not
 PT trigger adenosine receptors during metabolism, useful e.g. for treating
 PT cancers and respiratory obstructions -
 XX
 XX Disclosure: Page 252-254; 1592pp; English.
 XX
 XX The present invention describes low adenosine (A) content antisense
 CC oligonucleotides and compositions (I) comprising them. In the antisense
 CC oligonucleotides the A is replaced by a 'universal' or alternative base.
 CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
 CC immunosuppressive, antisthmatic, hypotensive and cytostatic activities.
 CC The antisense oligonucleotides and (I) can be used to down-regulate the
 CC expression and/or activity of target polypeptides associated with
 CC lung/respiratory disorders and malignancies, such as stimulating and
 CC activating peptide factors and transmitters, such as stimulating and
 CC immunoglobulins and antibodies, antibody receptors, cytokines and
 CC chemokines, endogenously produced specific and non-specific enzymes,
 CC binding proteins, adhesion molecules and their receptors, cytokine and
 CC chemokine receptors, adenosine receptors, bradykinin receptors, central
 CC nervous system (CNS) and peripheral nervous and non-nervous system
 CC receptors, CNS and peripheral nervous and non-nervous system peptide
 CC transmitters, defensins, growth factors, vasoactive peptides and
 CC receptors, binding proteins and malignancy associated proteins. The
 CC antisense oligonucleotides may be used in this way to treat disorders
 CC including respiratory obstruction (especially pulmonary obstruction
 CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies)
 CC and/or surfactant hypoproduction which are associated with a disease or
 CC condition selected from pulmonary vasoconstriction, inflammation,
 CC allergies, asthma, impaired respiration, respiratory distress syndrome
 CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
 CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
 CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
 CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
 CC fragments and antisense oligonucleotides used in the exemplification of
 CC the present invention.
 CC
 XX Sequence 8222 BP; 1731 A; 2574 C; 2360 G; 1557 T; 0 other;
 SQ

Query Match 100.0%; Score 4145; DB 21; Length 8222;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTCGGCACCTTTGATGAGGGGAGCTTGTAGACATGCCG 60
 DB 1 CTGCTTTAAATCTCTCGGCACCTTTGATGAGGGGAGCTTGTAGACATGCCG 60

QY 61 AAGTTCCTAAGGACAGGCTCTCTGTTGATGCTTACCCCGGAGGAGGATGC 120
 DB 61 AAGTTCCTAAGGACAGGCTCTCTGTTGATGCTTACCCCGGAGGAGGATGC 120

QY 121 AGCCAGCTGCAAGCCCAAGTGAAGACATCTGAGTCAATCAATCAAGTGAATAA 180
 DB 121 AGCCAGCTGCAAGCCCAAGTGAAGACATCTGAGTCAATCAATCAAGTGAATAA 180

QY 181 GTGACCTGCTTTGTAAGGCAATGAGATGCTCTGTTGAAATTTCTGTTCAAGACA 240
 DB 181 GTGACCTGCTTTGTAAGGCAATGAGATGCTCTGTTGAAATTTCTGTTCAAGACA 240

QY 241 AATTCCACAGTATGCAATGATGGGAAAAAGACATCAACAACTGGAAGAAAGCC 300
 DB 241 AATTCCACAGTATGCAATGATGGGAAAAAGACATCAACAACTGGAAGAAAGCC 300

QY 301 CCTGTGACCACTCCAGTCCAGTGAACAGATGACCTTCAATACAACTCCAGCAAGC 360
 DB 301 CCTGTGACCACTCCAGTCCAGTGAACAGATGACCTTCAATACAACTCCAGCAAGC 360

DB 301 CCTGTGACCACTCCAGTCCAGTGAACAGATGACCTTCAATACAACTCCAGCAAGC 360
 QY 361 AGCAGATGATGATCCCGGAGCCCTCGTGAGAGAGGAAAGAGTCTCCAGATCTCTGG 420
 DB 361 AGCAGATGATGATCCCGGAGCCCTCGTGAGAGAGGAAAGAGTCTCCAGATCTCTGG 420

QY 421 TCAAGCTGATGATGATCCCGGAGCCCTCGTGAGAGAGGAAAGAGTCTCCAGATCTCTGG 480
 DB 421 TCAAGCTGATGATGATCCCGGAGCCCTCGTGAGAGAGGAAAGAGTCTCCAGATCTCTGG 480

QY 481 GCGGATGATGATGATCCCGGAGCCCTCGTGAGAGAGGAAAGAGTCTCCAGATCTCTGG 540
 DB 481 GCGGATGATGATGATCCCGGAGCCCTCGTGAGAGAGGAAAGAGTCTCCAGATCTCTGG 540

QY 541 CCAATATCTGCTGGGCTCTTATGATCTCCAAAAGTTTGACCAAGGACCCAGGACA 600
 DB 541 CCAATATCTGCTGGGCTCTTATGATCTCCAAAAGTTTGACCAAGGACCCAGGACA 600

QY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCACCAATATTAGC 660
 DB 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCACCAATATTAGC 660

QY 661 GCTCTCTTCAAAAGAGGCAAAAATAGAGGACATCTGCGCAGGTTGAAGCGGTAAACAAG 720
 DB 661 GCTCTCTTCAAAAGAGGCAAAAATAGAGGACATCTGCGCAGGTTGAAGCGGTAAACAAG 720

QY 721 AGATGAAACAAACGAGAACCTACCACTGAGAGAGTGAAGTCTTTCGACCAAGC 780
 DB 721 AGATGAAACAAACGAGAACCTACCACTGAGAGAGTGAAGTCTTTCGACCAAGC 780

QY 781 AGGCTGCGCGCAATGCGCCAGCTGATGAGAGATCCAGTGTCCAACTCCAGATGTC 840
 DB 781 AGGCTGCGCGCAATGCGCCAGCTGATGAGAGATCCAGTGTCCAACTCCAGATGTC 840

QY 841 TCGATGCGCGCGAGTGTTCACATGCGCGGGAATGTTGAACATCTGAGACACGTGC 900
 DB 841 TCGATGCGCGCGAGTGTTCACATGCGCGGGAATGTTGAACATCTGAGACACGTGC 900

QY 901 GTTACTCTCCACCAACAAATGAGCAATCATGAGTGGGCACTACCGGTTCGCCAGCGAGTG 960
 DB 901 GTTACTCTCCACCAACAAATGAGCAATCATGAGTGGGCACTACCGGTTCGCCAGCGAGTG 960

QY 961 ATGCAAGCAACGATCTCGGGTGTGAATGCTCACTCATCGCTATGCTGCTTACAGA 1020
 DB 961 ATGCAAGCAACGATCTCGGGTGTGAATGCTCACTCATCGCTATGCTGCTTACAGA 1020

QY 1021 TGCCAGATGAGATGAGAGGAGGACCTGCGCAACGTGAATCACTCACTGCTGATGATG 1080
 DB 1021 TGCCAGATGAGATGAGAGGAGGACCTGCGCAACGTGAATCACTCACTGCTGATGATG 1080

QY 1081 ACCTGGGCTGGAAGCCCAATAGAGGCGCTTGCATGTGTCGCCCTGCTCTGACAGGCA 1140
 DB 1081 ACCTGGGCTGGAAGCCCAATAGAGGCGCTTGCATGTGTCGCCCTGCTCTGACAGGCA 1140

QY 1141 ATGGCGCTGACCTGAGCTTTGAAATCCACCTGATGCTTGTGAGTGGCCATG 1200
 DB 1141 ATGGCGCTGACCTGAGCTTTGAAATCCACCTGATGCTTGTGAGTGGCCATG 1200

QY 1201 AACATCCCAATATGAGATGTTTGGGAACTGAGTAAAGTGAAGTGAAGTGAAGTGAAG 1260
 DB 1201 AACATCCCAATATGAGATGTTTGGGAACTGAGTAAAGTGAAGTGAAGTGAAGTGAAG 1260

QY 1261 TGCGCAACATGCTGTTGAGTGGGCGCTGAGTTCACAGGCTGCCCTTCAATGCT 1320
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QY 1321 GTTACATGGGCAAGAGATGAGTCCGGGACTTCTGTGACGTCCAGGCTTCAACATTC 1380
 DB 1321 GTTACATGGGCAAGAGATGAGTCCGGGACTTCTGTGACGTCCAGGCTTCAACATTC 1380

QY 1381 TGGAGAGATGAGGAGAGATGAGGCTGGAAGGCAAGGCTGCTGCTGGAAG 1440
 DB 1381 TGGAGAGATGAGGAGAGATGAGGCTGGAAGGCAAGGCTGCTGCTGGAAG 1440

OY 1441 ACCAGCTGTGTTGAGATCAACATTTGCTGATCCATAGTTTTCAGAGCAGATGTGA 1500
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Db 1441 ACCAGCTGTGTTGAGATCAACATTTGCTGATCCATAGTTTTCAGAGCAGATGTGA 1500
OY 1501 CCATCATGAGACACACCTGCTGCGATATCTTCATGAGTACATGACAGATATACC 1560
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Db 1501 CCATCATGAGACACACCTGCTGCGATATCTTCATGAGTACATGAGATATATACC 1560
OY 1561 GGTCCCGTGGGGGCTGCCCGGACAGCTGATTTGCTGCTCCCTCCATGCTGGAGCA 1620
|||||
Db 1561 GGTCCCGTGGGGGCTGCCCGGACAGCTGATTTGCTGCTCCCTCCATGCTGGAGCA 1620
OY 1621 TCACCCCGTGTTCACACAGAGATGCTAACTAGTCTGTCCCTTCTACTACTATC 1680
|||||
Db 1621 TCACCCCGTGTTCACACAGAGATGCTAACTAGTCTGTCCCTTCTACTACTATC 1680
OY 1681 AGGTAGAGGCTGGAAAAACCATGTCTGGACAGACAGAAAGGAGACCAAGAGAG 1740
|||||
Db 1681 AGGTAGAGGCTGGAAAAACCATGTCTGGACAGACAGAAAGGAGACCAAGAGAG 1740
OY 1741 AGATTCCATTGAAGTCTTGTCAAGAGCTGTCTTGTCTTGTATGCTGATGCGCAGA 1800
|||||
Db 1741 AGATTCCATTGAAGTCTTGTCAAGAGCTGTCTTGTCTTGTATGCTGATGCGCAGA 1800
OY 1801 CAATGGCGTCCGAGTCAAGATCAACATCTTTTGCACAGACAGAGAAATCAGAGG 1860
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Db 1801 CAATGGCGTCCGAGTCAAGATCAACATCTTTTGCACAGACAGAGAAATCAGAGG 1860
OY 1861 CGCTGGCTGGAGCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGTTCTGTGA 1920
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Db 1861 CGCTGGCTGGAGCTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGTTCTGTGA 1920
OY 1921 TGTATAGTACAGGCTGAGCTGCTGGAGAGAGACGCTGTGTGTGTGTGACAGTA 1980
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Db 1921 TGTATAGTACAGGCTGAGCTGCTGGAGAGAGACGCTGTGTGTGTGTGACAGTA 1980
OY 1981 CGTTTGGCATGAGACTGCCCTTGGCAATGAGAGAAATGAGAAATCGCTTTCATGC 2040
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Db 1981 CGTTTGGCATGAGACTGCCCTTGGCAATGAGAGAAATGAGAAATCGCTTTCATGC 2040
OY 2041 TGAAGAGCTCAACAACTTCAAGTACGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2100
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Db 2041 TGAAGAGCTCAACAACTTCAAGTACGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2100
OY 2101 CTGCGTCTGCGCTTGTCTGATGACATTTGATGAGAGCTGTGCCACCTGGGGCTCTC 2160
|||||
Db 2101 CTGCGTCTGCGCTTGTCTGATGACATTTGATGAGAGCTGTGCCACCTGGGGCTCTC 2160
OY 2161 AGCTCACCCTGATGGAGAAAGGAGATGAGCTCACTGGGACAGAGAGAGCTTCCGAGCT 2220
|||||
Db 2161 AGCTCACCCTGATGGAGAAAGGAGATGAGCTCACTGGGACAGAGAGAGCTTCCGAGCT 2220
OY 2221 GGGCGGTGCAAACTTCAAGGACGCTGTGAGAGCTTGTGATGTCGAGGCAAAACAGACA 2280
|||||
Db 2221 GGGCGGTGCAAACTTCAAGGACGCTGTGAGAGCTTGTGATGTCGAGGCAAAACAGACA 2280
OY 2281 TTTCAATGCCCAAGCTCTACACTCAATGAGCTGGAGACCCGACACTACAGGCTCG 2340
|||||
Db 2281 TTTCAATGCCCAAGCTCTACACTCAATGAGCTGGAGACCCGACACTACAGGCTCG 2340
OY 2341 TGCAGAGCTCAACAGCTTGTGAGCTCAAGCAAGCCCTCAGAGATGCTATGCAAGAG 2400
|||||
Db 2341 TGCAGAGCTCAACAGCTTGTGAGCTCAAGCAAGCCCTCAGAGATGCTATGCAAGAG 2400
OY 2401 TGTTCACCATGAGGCTCAAACTCTGCGAGATCTACAAAGTCCAGACAGCGTGTGCA 2460
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Db 2401 TGTTCACCATGAGGCTCAAACTCTGCGAGATCTACAAAGTCCAGACAGCGTGTGCA 2460
OY 2461 CCATCTGTGTGAACTCTCTGTGAGAGATGCCAAGGCTGAACTACCTCCGGGGAGC 2520
|||||
Db 2461 CCATCTGTGTGAACTCTCTGTGAGAGATGCCAAGGCTGAACTACCTCCGGGGAGC 2520

OY 2521 ACCTTGGGGTTTGTCCAGAGCAACAGCCGGCCCTGGTCCAGGATCTCGAGAGATGG 2580
|||||
Db 2521 ACCTTGGGGTTTGTCCAGAGCAACAGCCGGCCCTGGTCCAGGATCTCGAGAGATGG 2580
OY 2581 TGGATGGCCCCACACCCACACAGAGTGGCCCTGGAGAGCTGGATGAGATGGAGCT 2640
|||||
Db 2581 TGGATGGCCCCACACCCACACAGAGTGGCCCTGGAGAGCTGGATGAGATGGAGCT 2640
OY 2641 ACTGGGTGAGTGCAGAGAGGCTGGCCCTGGCTGATCAGGAGGCTTCACTACTCC 2700
|||||
Db 2641 ACTGGGTGAGTGCAGAGAGGCTGGCCCTGGCTGATCAGGAGGCTTCACTACTCC 2700
OY 2701 CGGACATCAACACACCCCAACACCACTGCTGCTCAAAAGTGGCCAGTGGCCACAG 2760
|||||
Db 2701 CGGACATCAACACACCCCAACACCACTGCTGCTCAAAAGTGGCCAGTGGCCACAG 2760
OY 2761 AAGAGCTGAGAGACAGAGGCTGGAGGCTGTGCCAGCTTACAGATACAGCAATGGA 2820
|||||
Db 2761 AAGAGCTGAGAGACAGAGGCTGGAGGCTGTGCCAGCTTACAGATACAGCAATGGA 2820
OY 2821 AGTTCAACAAACAGCCCAATTCCTGAGAGTGTAGAGAGTTCCTGCTGGGGTGT 2880
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Db 2821 AGTTCAACAAACAGCCCAATTCCTGAGAGTGTAGAGAGTTCCTGCTGGGGTGT 2880
OY 2881 CTGCTGGCTTCTGCTTTCACAGCTCCCATTCCTGAAGCCAGGTTCTACTCATCAGCT 2940
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Db 2881 CTGCTGGCTTCTGCTTTCACAGCTCCCATTCCTGAAGCCAGGTTCTACTCATCAGCT 2940
OY 2941 CTTCCCGGATCACACGCCCCAGGAGATCCACCTGACTGTGGCCGTGACCTACACCA 3000
|||||
Db 2941 CTTCCCGGATCACACGCCCCAGGAGATCCACCTGACTGTGGCCGTGACCTACACCA 3000
OY 3001 CCGAGATGGCCAGGGTTCCTGACACAGAGGCTGCGACAGATGAGGCTCAACACCTGA 3060
|||||
Db 3001 CCGAGATGGCCAGGGTTCCTGACACAGAGGCTGCGACAGATGAGGCTCAACACCTGA 3060
OY 3061 AGCCCCAAGACCCAGTGCCTGCTTGTGCGAATGCCAGCCCTTCCACCTCCCGAGG 3120
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OY 3121 ATCCCTCCCATCTTTCATCTCTATGAGGCTGTGGACAGGCAATCGTCCCTCCAGTT 3180
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Db 3121 ATCCCTCCCATCTTTCATCTCTATGAGGCTGTGGACAGGCAATCGTCCCTCCAGTT 3180
OY 3181 TCTGGAGCAAGCGCTCTCATGACTCCACAGAGAGGATGGGGAGGCGCATGACT 3240
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Db 3181 TCTGGAGCAAGCGCTCTCATGACTCCACAGAGAGGATGGGGAGGCGCATGACT 3240
OY 3241 TGGTGTGTGGTGGCGCCCGCCAGATGAGAGACACATCTACAGAGAGAGATGTGAGA 3300
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Db 3241 TGGTGTGTGGTGGCGCCCGCCAGATGAGAGACACATCTACAGAGAGAGATGTGAGA 3300
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OY 3361 CCAAGTCTATGTTTCAAGACATCTGCGGACAGCTGGCCAGGAGGCTCTGTCG 3420
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OY 3421 TCCACAGAGAGCCAGGCACTCTATGTTTGGGGGATGTGCGATGCGCGGAGCTGG 3480
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Db 3421 TCCACAGAGAGCCAGGCACTCTATGTTTGGGGGATGTGCGATGCGCGGAGCTGG 3480
OY 3481 CCCACACCCCTGAAAGAGCGTGTGGGCTGCCAAGCTGAATGAGAGAGAGGCTGAGG 3540
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Db 3481 CCCACACCCCTGAAAGAGCGTGTGGGCTGCCAAGCTGAATGAGAGAGAGGCTGAGG 3540
OY 3541 ACTATTTCTTTCAAGCTCAAGAGCCAGAAAGCTTATCAGAGAAATATCTTGGTGTAT 3600
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Db 3541 ACTATTTCTTTCAAGCTCAAGAGCCAGAAAGCTTATCAGAGAAATATCTTGGTGTAT 3600
OY 3601 TTCTTACAGAGCGAAGAAAGAGAGGCTGGCGGTGACGCCACAGCCTCGAGATGTAG 3660
|||||

Db 1652 AGCAGATGAGTCCCGCAGCCCTCTGTGAGAGCGGGAAGAGTCTCCAGATCTCTGG 1711
Qy 421 TCAGCTGGATGCAACCCCATTTGCTCCCGCAGGCAATGATGATCAAAATCTGGGCA 480
Db 1712 TCAACTGATGCAACCCCATTTGCTCCCGCAGGCAATGATGATCAAAATCTGGGCA 1771
Qy 481 GCGGATGATCTTCCAGACACACTTCCATTAAGGCGCAAGGATTTTAATCTGCAAGT 540
Db 1772 GCGGATGATCTTCCAGACACACTTCCATTAAGGCGCAAGGATTTTAATCTGCAAGT 1831
Qy 541 CCAATCTTGGCTGGGGTCCATTTATGACTCCCAAAAGTTTGACAGAGAGCCAGGAGCA 600
Db 1832 CCAATCTTGGCTGGGGTCCATTTATGACTCCCAAAAGTTTGACAGAGAGCCAGGAGCA 1891
Qy 601 AGCCTACCCCTCCAGATGAGTCTTACTCAAGCTATCGAATTTGTCAACCAATATTAG 660
Db 1892 AGCCTACCCCTCCAGATGAGTCTTACTCAAGCTATCGAATTTGTCAACCAATATTAG 1951
Qy 661 GCTCTTCAAGAGGCAAAATAGAGAAACATCTGGCCAGGTTGGAAGCGTTAAACAAG 720
Db 1952 GCTCTTCAAGAGGCAAAATAGAGAAACATCTGGCCAGGTTGGAAGCGTTAAACAAG 2011
Qy 721 AGATGAACAAACAGGAACCTACCACTGACGAGGAGATGAGCTATCTTGCCACCAAGC 780
Db 2012 AGATGAACAAACAGGAACCTACCACTGACGAGGAGATGAGCTATCTTGCCACCAAGC 2071
Qy 781 AGGCTTGGCGCAATGCCCAAGCTGATGGAGATCCAGTGGTCCACCTGAGGCT 840
Db 2072 AGGCTTGGCGCAATGCCCAAGCTGATGGAGATCCAGTGGTCCACCTGAGGCT 2131
Qy 841 TCGATGGCGCGAGCTGTTCCACTGCTCCCGGGAATGTTTGAACACATCTGACAGCTGC 900
Db 2132 TCGATGGCGCGAGCTGTTCCACTGCTCCCGGGAATGTTTGAACACATCTGACAGCTGC 2191
Qy 901 GTTACTCCACCAACATGGAACATCAGTTCGGGCAATCAGCTGTTCCCGCAGGAGTG 960
Db 2192 GTTACTCCACCAACATGGAACATCAGTTCGGGCAATCAGCTGTTCCCGCAGGAGTG 2251
Qy 961 ATGGCAAGCAACGACTTCGGGCTGTGAATGCTCAGCTCATCGCTATGCTGGCTACAGA 1020
Db 2252 ATGGCAAGCAACGACTTCGGGCTGTGAATGCTCAGCTCATCGCTATGCTGGCTACAGA 2311
Qy 1021 TGCAGATGGCAGATCAGAGGGGAGCCCTGCCAAGCTGGAATTCATCTAGCTGTGATG 1080
Db 2312 TGCAGATGGCAGATCAGAGGGGAGCCCTGCCAAGCTGGAATTCATCTAGCTGTGATG 2371
Qy 1081 ACCTGGGCTGGAAGCCCAAGTACGGCGCTTGCATGTGTCCTCCCTGTCCTCAGAGCA 1140
Db 2372 ACCTGGGCTGGAAGCCCAAGTACGGCGCTTGCATGTGTCCTCCCTGTCCTCAGAGCA 2431
Qy 1141 ATGGCGGTGACCTGAGCTTTCGAATCCACCTGACCTTGTGTTGAGGTGGCCATG 1200
Db 2432 ATGGCGGTGACCTGAGCTTTCGAATCCACCTGACCTTGTGTTGAGGTGGCCATG 2491
Qy 1201 AACATCCCAAAATAGAGTGGTTTCGGGAATGAGCTAAAGTGTGCGCCCTGCGAG 1260
Db 2492 AACATCCCAAAATAGAGTGGTTTCGGGAATGAGCTAAAGTGTGCGCCCTGCGAG 2551
Qy 1261 TGGCACAATGCTGTTGAGGTGGGCGCTGAGTTTCCAGAGGTGCCCCCTTCAMTGGCT 1320
Db 2552 TGGCACAATGCTGTTGAGGTGGGCGCTGAGTTTCCAGAGGTGCCCCCTTCAMTGGCT 2611
Qy 1321 GGTACATGGGCAACAGAGTCCGAGTCCGGGACTTCTGTAGCTCCAGCGCTCAACATCC 1380
Db 2612 GGTACATGGGCAACAGAGTCCGAGTCCGGGACTTCTGTAGCTCCAGCGCTCAACATCC 2671
Qy 1381 TGGAGAAAGTGGGCAAGAGATGGGCTGGAACAGCACAAGCTGGGCTGCTGGAAG 1440
Db 2672 TGGAGAAAGTGGGCAAGAGATGGGCTGGAACAGCACAAGCTGGGCTGCTGGAAG 2731
Qy 1441 ACCAGGCTGCTGTGATCAACATTTGCTGTATCCATAGTTTTCAGAGCAGAAATGTA 1500
Db 2732 ACCAGGCTGCTGTGATCAACATTTGCTGTATCCATAGTTTTCAGAGCAGAAATGTA 2791
Qy 1501 CCAATCATGACCAACCACTGGCTGCAGAAATCCTTCAATGAGTACATGCAATGAATACC 1560
Db 2792 CCAATCATGACCAACCACTGGCTGCAGAAATCCTTCAATGAGTACATGCAATGAATACC 2851
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Qy 1621 TCAACCCCGGTGTTTCAACAGAGATGCTGAACAGTCTGTCCTGCTCTCTACTATAC 1680
Db 2912 TCAACCCCGGTGTTTCAACAGAGATGCTGAACAGTCTGTCCTGCTCTCTACTATAC 2971
Qy 1681 AGGTAGAGGCTGGAAACCAATGCTGTGAGAGAGAGAGGAGAGCCCAAGAGAGAG 1740
Db 2972 AGGTAGAGGCTGGAAACCAATGCTGTGAGAGAGAGAGGAGAGCCCAAGAGAGAG 3031
Qy 1741 AGATTCATTTGAAGCTTGTGTAAGCTGTGCTCTTTCCTGTATGCTATGCCAAGA 1800
Db 3032 AGATTCATTTGAAGCTTGTGTAAGCTGTGCTCTTTCCTGTATGCTATGCCAAGA 3091
Qy 1801 CAATGGCGTCCGAGTACAGAGTACCATCTCTTTCGACAGAGAGAGAAATAGAGAG 1860
Db 3092 CAATGGCGTCCGAGTACAGAGTACCATCTCTTTCGACAGAGAGAGAAATAGAGAG 3151
Qy 1861 CGCTGGCTGGGACCTGGGGGCTTATTCAGCTGTGCTTCAACCCAGGTGTCTGCA 1920
Db 3152 CGCTGGCTGGGACCTGGGGGCTTATTCAGCTGTGCTTCAACCCAGGTGTCTGCA 3211
Qy 1921 TGGATAGTACAGGCTGACCTGCTGAGAGAGAGAGGCTGTGTTGGTGGTACACTA 1980
Db 3212 TGGATAGTACAGGCTGACCTGCTGAGAGAGAGAGGCTGTGTTGGTGGTACACTA 3271
Qy 1981 CGTTTGGCAATGAGAGCTGCTGCAATGAGAGAAACCTGAAGAAATGCTTTCATGC 2040
Db 3272 CGTTTGGCAATGAGAGCTGCTGCAATGAGAGAAACCTGAAGAAATGCTTTCATGC 3331
Qy 2041 TGAAGAGCTCAACAAACAAATTCAGTACGCTGTTTGGCTCGGCTCCAGCATATAC 2100
Db 3332 TGAAGAGCTCAACAAACAAATTCAGTACGCTGTTTGGCTCGGCTCCAGCATATAC 3391
Qy 2101 CTCGGTTCGCGCTTGTGCTATGATGATCAGAACTGCTCCACCTGGGGGCTCTC 2160
Db 3392 CTCGGTTCGCGCTTGTGCTATGATGATCAGAACTGCTCCACCTGGGGGCTCTC 3451
Qy 2161 AGCTACCCCGATGGGAGAGGGGATGAGCTCAGTGGGCAAGAGAGCGCTTCCGAGCT 2220
Db 3452 AGCTACCCCGATGGGAGAGGGGATGAGCTCAGTGGGCAAGAGAGCGCTTCCGAGCT 3511
Qy 2221 GGGCGGTCAAACTTCAAGGAGGCTGTGAGAGCTTGTGATGTCGAGGCAAAACAGCA 2280
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Qy 2281 TTCAATCCCAAGCTCTTCAACCTTCAATGAGCTTGGAGCCGACACTATCAGGCTGC 2340
Db 3572 TTCAATCCCAAGCTCTTCAACCTTCAATGAGCTTGGAGCCGACACTATCAGGCTGC 3631
Qy 2341 TGCAGAGTCAAGGCTTGTGAACTTGCAGCAAGGCTTCAGAGATGATGCAAGAG 2400
Db 3632 TGCAGAGTCAAGGCTTGTGAACTTGCAGCAAGGCTTCAGAGATGATGCAAGAG 3691
Qy 2401 TGTTCACCATGAGGCTCAAAATCTGAGAGATTCACAAAGTCCGACATCCAGCGTCCCA 2460
Db 3692 TGTTCACCATGAGGCTCAAAATCTGAGAGATTCACAAAGTCCGACATCCAGCGTCCCA 3751
Qy 2461 CCATCTGTGTGGAATCTCTGTGAGATGGCCAGGCTTGAATACCTGCGGGGAGC 2520
Db 3752 CCATCTGTGTGGAATCTCTGTGAGATGGCCAGGCTTGAATACCTGCGGGGAGC 3811
Qy 2521 ACCTTGGGCTTGGCCAGGCAACAGCGGCGCTGTGTCGAAGGATCTTGGAGCGAGTG 2580
Db 3812 ACCTTGGGCTTGGCCAGGCAACAGCGGCGCTGTGTCGAAGGATCTTGGAGCGAGTG 3871

QY 2581 TGGATGGCCCCACACCCACCAGAGAGTGGCGCTGGAGAGACCTGGATGAGAGTGGACGT 2640
 Db 3872 TGGATGGCCCCACACCCACCAGAGAGTGGCGCTGGAGAGACCTGGATGAGAGTGGACGT 3931
 QY 2641 ACTGGGTAGTGAAGAAGGGTGGCCCCCTGCTCACTCAGCCAGAGCCCTCAGTACTGCC 2700
 Db 3932 ACTGGGTAGTGAAGAAGGGTGGCCCCCTGCTCACTCAGCCAGAGCCCTCAGTACTGCC 3991
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 Db 3992 CGGACATCAACACCCCAACCCAGCCAGTGGTGGTCCAAATGAGTGGCCAGTGGCCAGAG 4051
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 Db 4172 CTGGTGGGCTCTGCTTCCAGAGTCCCAATTCGAAAGCCAGGTTTACTCCATCAGACT 4231
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 Db 4292 CGGAGATGGCCAGGGTCCCTCGACACAGGGTGTGAGAGACATAGGTCACCAAGCCGA 4351
 QY 3061 AGCCCAAGAGACCACTGGCTCTTGTGGGGAATGCCAGGCGCTCCACCTCCCGAGG 3120
 Db 4352 AGCCCAAGAGACCACTGGCTCTTGTGGGGAATGCCAGGCGCTCCACCTCCCGAGG 4411
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 QY 3181 TGTGGAGACAGGGCTCATGATCTCCAGACAAAGGAGTGGGGAGGCGGACATGACT 3240
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 QY 3241 TGGTGTGGGTGCGCGCGCCAGATGAGAGACACATCTACAGAGAGATGTGAGGA 3300
 Db 4532 TGGTGTGGGTGCGCGCGCCAGATGAGAGACACATCTACAGAGAGATGTGAGGA 4591
 QY 3301 TGGCCCAAGAGGGGTGCTGCTGCGGTGACACAGCCTATTCCTCCGCTGGCAAGC 3360
 Db 4592 TGGCCCAAGAGGGGTGCTGCTGCGGTGACACAGCCTATTCCTCCGCTGGCAAGC 4651
 QY 3361 CCAAGGTCTATGTTAGAGCATCTGCGGACAGCAGTGGCCAGAGTGTCTGCTGTC 3420
 Db 4652 CCAAGGTCTATGTTAGAGCATCTGCGGACAGCAGTGGCCAGAGTGTCTGCTGTC 4711
 QY 3421 TCCACAAGAGGCGCAGGCACTCTATGTTTGGGGGATGTGCGCATGCGCGGACGTGG 3480
 Db 4712 TCCACAAGAGGCGCAGGCACTCTATGTTTGGGGGATGTGCGCATGCGCGGACGTGG 4771
 QY 3481 CCCACACCTGAAAGAGCTGGTGGTGGCCAACTGAATGTAATGAGAGAGAGTGGCGAGG 3540
 Db 4772 CCCACACCTGAAAGAGCTGGTGGTGGCCAACTGAATGTAATGAGAGAGAGTGGCGAGG 4831
 QY 3541 ACTATTTCTTTCAGTCAAGAGCCAGAAAGCGCTATCAGAAAGATATCTTGGTGTGTAT 3600
 Db 4832 ACTATTTCTTTCAGTCAAGAGCCAGAAAGCGCTATCAGAAAGATATCTTGGTGTGTAT 4891
 QY 3601 TTCTTTAGAGGCGGAAGAGACAGGGTGGCGTCCAGCCAGCAGCTGAGATGTAG 3660
 Db 4892 TTCTTTAGAGGCGGAAGAGACAGGGTGGCGTCCAGCCAGCAGCTGAGATGTAG 4951
 QY 3661 CGCTGTGAGGGCTACAGAGAGGGGTAAAGCTTGGCGGACAGAACTTAAAGATGAGAGCA 3720

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 Db 5012 GCTTCTGATTATCTGAGGTGCACAGGGCTGGGAGATGAGAGAAAGTATATCCCCAGC 5071
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 Db 5072 CTCAGTCTTATTTCTCAAGCTTGGTCCCATCAAGAGCCCTTACTGTACTCTCAACA 5131
 QY 3841 GTAGCACCCCTGATGATGAGAGCTCTCTCTCAAACTGGGAGCTCCCTGCTTGG 3900
 Db 5132 GTAGCACCCCTGATGATGAGAGCTCTCTCTCAAACTGGGAGCTCCCTGCTTGG 5191
 QY 3901 AGACAAATCTTAATGCCAGGCTGGGAGTGGGGAAGATGGAATCTGTGCTGAGT 3960
 Db 5192 AGACAAATCTTAATGCCAGGCTGGGAGTGGGGAAGATGGAATCTGTGCTGAGT 5251
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 Db 5252 GCACCACTTCAAGTGAACCAAGAGAGTGTGTATGACACCACTGTATTTAACTGCTTG 5311
 QY 4021 TGTACAGTTATTTATGCTCTGTATTTAAAAAATAACCAAGTGTTCCTCCATGGCC 4080
 Db 5312 TGTACAGTTATTTATGCTCTGTATTTAAAAAATAACCAAGTGTTCCTCCATGGCC 5371
 QY 4081 ACTTGGGCTTCCCTGATGATCTCTTGAATGAGATATTACATGATTTACTT 4140
 Db 5372 ACTTGGGCTTCCCTGATGATCTCTTGAATGAGATATTACATGATTTACTT 5431
 QY 4141 TAATC 4145
 Db 5432 TAATC 5436

RESULT 8
 AAA34820 standard; DNA; 9513 BP.
 XX AAA34820;
 AC 28-JUL-2000 (first entry)
 DE Human adenosine receptor related polynucleotide SEQ ID NO:2509.
 DE Human: adenosine receptor; low adenosine antisense oligonucleotide;
 KW phosphorothioate; impaired respiration; inflammation; allergy;
 KW allergic disease; bronchoconstriction; inhibitor; anti-inflammatory;
 KW antiallergic; antiasthmatic; cyostatic; analgesic; impaired airway;
 KW lung disease; ischemic condition; pulmonary vasoconstriction; asthma;
 KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
 KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
 KW cancer; leukemia; lymphoma; carcinoma; metastasis; ss.
 XX
 OS Homo sapiens.
 PN WO200009525-A2.
 PD 24-FEB-2000.
 PE 03-AUG-1999; 99WO-US17712.
 PR 03-AUG-1998; 98US-0095212.
 XX (UYEC-) UNIV EAST CAROLINA.
 XX NYce JW;
 XX WPI; 2000-205971/18.
 XX New antisense oligonucleotides useful for treating e.g. pulmonary
 PT vasoconstriction, inflammation, allergies, asthma, hypertension.

QY 3841 GTAGACCCCTGGATTGATGAGAGCCCTCTCTCAAACTGGGGGCTCCCTGTCCTGG 3900
 DB 5132 GTAGACCCCTGGATTGATGAGAGCCCTCTCTCAAACTGGGGGCTCCCTGTCCTGG 5191
 QY 3901 AACACAAATCTTAAATGCCAGGCTGGGAGTGGGTGAAGATGGAACCTGCTGAGT 3960
 DB 5192 AACACAAATCTTAAATGCCAGGCTGGGAGTGGGTGAAGATGGAACCTGCTGAGT 5251
 QY 3961 GCACCACTTCAAGTACACACAGGAGGTGATGCGACCACTGCTGATTAAGTCCCTGG 4020
 DB 5252 GCACCACTTCAAGTACACACAGGAGGTGATGCGACCACTGCTGATTAAGTCCCTGG 5311
 QY 4021 TGTACAGTTATTTATGCTCTGTATTTAAAAAATAACACCACTGCTGTCCTGG 4080
 DB 5312 TGTACAGTTATTTATGCTCTGTATTTAAAAAATAACACCACTGCTGTCCTGG 5371
 QY 4081 ACTTGGGCTTCCCTGTGATGATTCCTTATGAGATATTTACATGAAATTCATTTACTT 4140
 DB 5372 ACTTGGGCTTCCCTGTGATGATTCCTTATGAGATATTTACATGAAATTCATTTACTT 5431
 QY 4141 TAATC 4145
 DB 5432 TAATC 5436

RESULT 9

AAE21436
 ID AAE21436 standard; DNA: 35384 BP.

AC AAE21436:

DT 14-MAR-2001 (first entry)

XX Human enzyme-related antisense polynucleotide #3003.

XX Low adenosine antisense oligonucleotide: phosphorothioate; allergy;
 human; airway disorder; bronchoconstriction; lung inflammation;
 immunosuppressive; antiallergic; antihistaminic; antipruritic;
 immunosuppressive; antiallergic; antipruritic; antipruritic;
 surfactant obstruction; pulmonary obstruction; impeded respiration;
 surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
 respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
 pulmonary hypertension; emphysema; pulmonary transplantation rejection;
 chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
 cancer; ss.

OS Homo sapiens.

PN WO200062736-A2.

PD 26-OCT-2000.

PF 24-MAR-2000: 2000WO-US08020.

PR 06-APR-1999: 99US-0127958.

PA (UYEC-) UNIV EAST CAROLINA.

PI (NYCE/) NYCE J W.

DR WPI: 2000-679539/66.

PT Low adenosine (A) content antisense oligonucleotides which do not
 trigger adenosine receptors during metabolism, useful e.g. for treating
 cancers and respiratory obstructions -

PS Disclosure: Page 47-55: 1592pp; English.

CC The present invention describes low adenosine (A) content antisense
 oligonucleotides and compositions (I) comprising them. In the antisense
 oligonucleotides the A is replaced by a 'Universal' or alternative base.

CC (1) can have respiratory, bronchodilator, antiinflammatory, analgesic,
 immunosuppressive, antiallergic, antipruritic, antipruritic, antipruritic,
 the antisense oligonucleotides and (I) can be used to down-regulate the
 expression and/or activity of target polypeptides associated with
 CC lung/respiratory disorders and malignancies, such as stimulating and
 activating peptide factors and transmitters, transcription factors,
 immunoglobulins and antibodies, antibody receptors, cytokines and
 chemokines, endogenously produced specific and non-specific enzymes,
 binding proteins, adhesion molecules and their receptors, cytokine and
 chemokine receptors, adenosine receptors, bradykinin receptors, central
 nervous system (CNS) and peripheral nervous and non-nervous system
 receptors, CNS and peripheral nervous and non-nervous system peptide
 transmitters, defensins, growth factors, vasoactive peptides and
 receptors, binding proteins and malignancy associated proteins and
 CC antisense oligonucleotides may be used in this way to treat disorders
 CC including respiratory obstruction (especially pulmonary obstruction
 CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies)
 CC condition selected from pulmonary vasoconstriction, inflammation,
 CC allergies, asthma, impeded respiration, respiratory distress syndrome
 CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
 CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
 CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
 CC and/or cancer. AAE21434 to AAE21543 represent human polynucleotide
 CC fragments and antisense oligonucleotides used in the exemplification of
 the present invention.

Sequence 35384 BP: 7013 A; 10128 C; 10025 G; 7883 T; 335 other;

Query Match 100.0%; Score 4145; DB 21; Length 35384;
 Best Local Similarity 100.0%; Pred. No. 0;

Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCTGCGCCACCTTTGATGAGAGGAGCGGACCTTACAGACCTCCG 60
 DB 27163 CTGCTTTAAATCTCTGCGCCACCTTTGATGAGAGGAGCGGACCTTACAGACCTCCG 27222
 QY 61 AAGTTCACAGGACAGAGGCTCTTCTGTTGACTGTCCTTACCCGGGAGGACATGC 120
 DB 27223 AAGTTCACAGGACAGAGGCTCTTCTGTTGACTGTCCTTACCCGGGAGGACATGC 27282
 QY 121 AGCCAGCTGCAAGCCCAAGTGAAGAACATCTGACTCAATTCAGATGAAGTGAATTA 180
 DB 27283 AGCCAGCTGCAAGCCCAAGTGAAGAACATCTGACTCAATTCAGATGAAGTGAATTA 27342
 QY 181 GTGACCTGCTTGTAAAGCCATAGAGATGCGCTGCTTGTGAATTTCTGTTCAAGACA 240
 DB 27343 GTGACCTGCTTGTAAAGCCATAGAGATGCGCTGCTTGTGAATTTCTGTTCAAGACA 27402
 QY 241 AATTCACAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 300
 DB 27403 AATTCACAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 27462
 QY 301 CCGTGGCCAGCTCAGTCCAGTGAAGAGTGAACCTTCACTATCAGAACCTCAGAACG 360
 DB 27463 CCGTGGCCAGCTCAGTCCAGTGAAGAGTGAACCTTCACTATCAGAACCTCAGAACG 27522
 QY 361 AGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 420
 DB 27523 AGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 27582
 QY 421 TCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
 DB 27583 TCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 27642
 QY 481 GCGGAGTGAATCTTCCAGACACACTTCAATTAAGGCCAAGGATTTAACTTGAAGT 540
 DB 27643 GCGGAGTGAATCTTCCAGACACACTTCAATTAAGGCCAAGGATTTAACTTGAAGT 27702
 QY 541 CCAATCTTGGCTGGGGTCCATTTGATGATGATGATGATGATGATGATGATGATGATGAT 600
 DB 27703 CCAATCTTGGCTGGGGTCCATTTGATGATGATGATGATGATGATGATGATGATGATGAT 27762

QY	601	AGCCATACCCCTCCAGATGAGCTTCTACTCTCAAGCTATACGATTCGAAATTTGTCAACCAATATTACG	660
Db	27763	AGCCTACCCCTCCAGATGAGCTTCTACTCTCAAGCTATACGATTTGTCAACCAATATTACG	27822
QY	661	GCTCTTCAAGAGGACAAAATATAGAGAACATCTGGCCAGGGTGGAAACGGTTAAACAAAG	720
Db	27823	GCTCTTCAAGAGGACAAAATATAGAGAACATCTGGCCAGGGTGGAAACGGTTAAACAAAG	27882
QY	721	AGATTGAACAACAGGAACCTTACCACTGACGGGAGATGAGACTCATCTTGGCCACCAAGC	780
Db	27883	AGATTGAACAACAGGAACCTTACCACTGACGGGAGATGAGACTCATCTTGGCCACCAAGC	27942
QY	781	AGGCTGGCGCAATGGCCACGCTGCAATTGGGAGGATCCAGTGGTCCAAACCTGCAGGCTCT	840
Db	27943	AGGCTGGCGCAATGGCCACGCTGCAATTGGGAGGATCCAGTGGTCCAAACCTGCAGGCTCT	28002
QY	841	TGATGCCCCGACGCTGTTCCACTGCCCGGGAAATGTTGAACACATCTGCAGACACGGC	900
Db	28003	TGATGCCCCGACGCTGTTCCACTGCCCGGGAAATGTTGAACACATCTGCAGACACGGC	28062
QY	901	GTTACTCCACCAACATGGCAACATCAGGTGGGCAATCAGCTGTTTCCCCACGCGGAGTG	960
Db	28063	GTTACTCCACCAACATGGCAACATCAGGTGGGCAATCAGCTGTTTCCCCACGCGGAGTG	28122
QY	961	ATGCGACGACGACTTCCGGGTGTGGAAATGCTCAGCTATCCGCTATGCTGGCTTACGAGA	1020
Db	28123	ATGCGACGACGACTTCCGGGTGTGGAAATGCTCAGCTATCCGCTATGCTGGCTTACGAGA	28182
QY	1021	TGCCAGATGGGACGATCAGAGAGGGGACCCGCAACGTGGAATTCATGACGTGTCATTCG	1080
Db	28183	TGCCAGATGGGACGATCAGAGAGGGGACCCGCAACGTGGAATTCATGACGTGTCATTCG	28242
QY	1081	ACCTGGGCTGGAAGCCCAAGTACGGGCGCTTGATGTGAGTGGTCCCTGGTCTGTCAAGCCCA	1140
Db	28243	ACCTGGGCTGGAAGCCCAAGTACGGGCGCTTGATGTGAGTGGTCCCTGGTCTGTCAAGCCCA	28302
QY	1141	ATGGCCGTGACCCCTAGAGCTTCGAAATCCCAACCTGACCTTGGCTGAGGTGGGCAATGG	1200
Db	28303	ATGGCCGTGACCCCTAGAGCTTCGAAATCCCAACCTGACCTTGGCTGAGGTGGGCAATGG	28362
QY	1201	AACATTCGCCAAATACGAGTGGTTTCGGGAACTGGAGCTAAAGTGGTACGCGCTGCTGCAG	1260
Db	28363	AACATTCGCCAAATACGAGTGGTTTCGGGAACTGGAGCTAAAGTGGTACGCGCTGCTGCAG	28422
QY	1261	TGGCCACATGCTGCTGTGAGGTGGGGGCGGCTGGAAGTTCACAGGGTGGCCCTTCATGGCT	1320
Db	28423	TGGCCACATGCTGCTGTGAGGTGGGGGCGGCTGGAAGTTCACAGGGTGGCCCTTCATGGCT	28482
QY	1321	GGTACATGGGACAGAGATCGGAGTCCGGAGCTTCTGTAGCGTCCAGCGCTACCAATCC	1380
Db	28483	GGTACATGGGACAGAGATCGGAGTCCGGAGCTTCTGTAGCGTCCAGCGCTACCAATCC	28542
QY	1381	TGGAGCAAGTGGGACAGGAGATTGGGCTTGGAAAACGACAAAGCTGGGCTGGCTTGGAAAG	1440
Db	28543	TGGAGCAAGTGGGACAGGAGATTGGGCTTGGAAAACGACAAAGCTGGGCTGGCTTGGAAAG	28602
QY	1441	ACCAGGCTGTCGTTGAGATCAACATGCTGTGATCCATAGTTTTCGAAGCAGAATGTGA	1500
Db	28603	ACCAGGCTGTCGTTGAGATCAACATGCTGTGATCCATAGTTTTCGAAGCAGAATGTGA	28662
QY	1501	CCATCATGGAACCAACCATCGGCTGCAGAAATCTTCAATGAAGTACATGCAAGATGAATTACC	1560
Db	28663	CCATCATGGAACCAACCATCGGCTGCAGAAATCTTCAATGAAGTACATGCAAGATGAATTACC	28722
QY	1561	GGTCCCGTGGGGGCTCGCGGACAGATGGAATTGGGCGGTCCTCCAGTGTGGGAGCA	1620
Db	28723	GGTCCCGTGGGGGCTCGCGGACAGATGGAATTGGGCGGTCCTCCAGTGTGGGAGCA	28782
QY	1621	TCAACCCCGTGTTCACACAGAAATGCTGAACACTGCTGTCCTTCTACTACTATC	1680
Db	28783	TCAACCCCGTGTTCACACAGAAATGCTGAACACTGCTGTCCTTCTACTACTATC	28842
QY	1681	AGGTAGAGGCTTGGAAAACCATGTCTGGCAGGACGAGAACGGGAGACCAAGAGAAAG	1740

Db 29923 AAGAGCTGAGAGACAGAGGCTGAGGCGCTGTGCCAGCCCTCAGAGTACAGCAAGTGA 29982
 QY 2821 AGTTCAACCAAGAGCCACATCTCTGAGGTGCTAGAGAGATTCCGTCCTCGGGTGT 2880
 Db 29983 AGTTCAACCAAGAGCCACATCTCTGAGGTGCTAGAGAGATTCCGTCCTCGGGTGT 30042
 QY 2881 CTGCTGGCTTCTGCTTTTCCAGCTCCCATCTGAAAGCCAGGTTCTATCCATAGCT 2940
 Db 30043 CTGCTGGCTTCTGCTTTTCCAGCTCCCATCTGAAAGCCAGGTTCTATCCATAGCT 30102
 QY 2941 CTTCCCGGGATACAGAGCCAGAGATACACTGACTGTGGCCGTGTCTACCTACCA 3000
 Db 30103 CTTCCCGGGATACAGAGCCAGAGATACACTGACTGTGGCCGTGTCTACCTACCA 30162
 QY 3001 CCGAGATGAGCCAGGCTCCCTGACACAGGATGTCTGACAGACATAGGCTCAACAGCTGA 3060
 Db 30163 CCGAGATGAGCCAGGCTCCCTGACACAGGATGTCTGACAGACATAGGCTCAACAGCTGA 30222
 QY 3061 AGCCCAAGACCCAGTGCCTGCTTTGTGCGGAATGCCAGCGCTTCCACTCCCGAGG 3120
 Db 30223 AGCCCAAGACCCAGTGCCTGCTTTGTGCGGAATGCCAGCGCTTCCACTCCCGAGG 30282
 QY 3121 ATCCCTCCATCCTTCATCTCATATGAGGCGCTGCGACAGGATCGTGCCTCCGAGTT 3180
 Db 30283 ATCCCTCCATCCTTCATCTCATATGAGGCGCTGCGACAGGATCGTGCCTCCGAGTT 30342
 QY 3181 TCTGCGAGCAGCGCTCATGACTCCACACAGAGGATGCGGGAGGCGCCATGACT 3240
 Db 30343 TCTGCGAGCAGCGCTCATGACTCCACACAGAGGATGCGGGAGGCGCCATGACT 30402
 QY 3241 TGTGTTTGGTGTCCCGCCCGCAGATGAGAGCCACTTACACAGAGAGATGCTGAGA 3300
 Db 30403 TGTGTTTGGTGTCCCGCCCGCAGATGAGAGCCACTTACACAGAGAGATGCTGAGA 30462
 QY 3301 TGGCCCAAGAGGGGGTGTGCATGGGTGTCACACAGCCATTCGCCGCTGCGCAAGC 3360
 Db 30463 TGGCCCAAGAGGGGGTGTGCATGGGTGTCACACAGCCATTCGCCGCTGCGCAAGC 30522
 QY 3361 CCAAGGCTCATGTTCAGACATCTGCGGCGACAGCTGCGCAGAGGTCCTCGGTGTC 3420
 Db 30523 CCAAGGCTCATGTTCAGACATCTGCGGCGACAGCTGCGCAGAGGTCCTCGGTGTC 30582
 QY 3421 TCCACAGAGAGCCAGGCCACTCTATGTTTGGCGGAGTGTGCGATGGCCCGGAGC 3480
 Db 30583 TCCACAGAGAGCCAGGCCACTCTATGTTTGGCGGAGTGTGCGATGGCCCGGAGC 30642
 QY 3481 CCCACACCCCTGAAGAGAGCTGTGGGCGCCAGCTGAATTAATAGAGAGAGTGCAGG 3540
 Db 30643 CCCACACCCCTGAAGAGAGCTGTGGGCGCCAGCTGAATTAATAGAGAGAGTGCAGG 30702
 QY 3541 ACTATTTCTTTCAGCTCAAGAGCCAGAAAGCGCTATCAGAAAGATATCTTGGTGTAT 3600
 Db 30703 ACTATTTCTTTCAGCTCAAGAGCCAGAAAGCGCTATCAGAAAGATATCTTGGTGTAT 30762
 QY 3601 TTCTTACAGAGCGAAGAGAGAGGCTGCGGTGCGCCAGCCAGCCCTGAGATGTCAG 3660
 Db 30763 TTCTTACAGAGCGAAGAGAGAGGCTGCGGTGCGCCAGCCAGCCCTGAGATGTCAG 30822
 QY 3661 CGCTTGAAGGCGCTACAGAGAGGTTAAAGTCCCGGACAGAACTTAAGATGAGAGCA 3720
 Db 30823 CGCTTGAAGGCGCTACAGAGAGGTTAAAGTCCCGGACAGAACTTAAGATGAGAGCA 30882
 QY 3721 GCTTGCATTTATCTAGAGTACAGAGGCGCTGGGAGATGAGAGAAATATCCCCAGC 3780
 Db 30883 GCTTGCATTTATCTAGAGTACAGAGGCGCTGGGAGATGAGAGAAATATCCCCAGC 30942
 QY 3781 CTCAGTCTTATTTCTCAAGCTGCTCCCATCAAGCCCTTACTTACTTACTCTCTAACAA 3840
 Db 30943 CTCAGTCTTATTTCTCAAGCTGCTCCCATCAAGCCCTTACTTACTTACTCTCTAACAA 31002
 QY 3841 GTAGACCCCTGATGATGAGAGCTCTCTCTCAAACTGGGCGCTCCCTGCTGCTGG 3900
 Db 31003 GTAGACCCCTGATGATGAGAGCTCTCTCTCAAACTGGGCGCTCCCTGCTGCTGG 31062

QY 3901 AGACAAATCTTAATGCGAGCGCTGGCGAGTGGTGAAGATGGAATGCTGCTAGT 3960
 Db 31063 AGACAAATCTTAATGCGAGCGCTGGCGAGTGGTGAAGATGGAATGCTGCTAGT 31122
 QY 3961 GCACCACTTCAAGTACACAGAGAGTGTATGACACACTGTGATTTTACTGCTTG 4020
 Db 31123 GCACCACTTCAAGTACACAGAGAGTGTATGACACACTGTGATTTTACTGCTTG 31182
 QY 4021 TGTACAGTTATTTATGCTGTGTATTTAAAAACTAACACCCAGTGTGTTCCCATGGC 4080
 Db 31183 TGTACAGTTATTTATGCTGTGTATTTAAAAACTAACACCCAGTGTGTTCCCATGGC 31242
 QY 4081 ACTTGGTCTTCCCTGTATGATTTCTGTATGAGATATTTTCAATGATGATTTACTT 4140
 Db 31243 ACTTGGTCTTCCCTGTATGATTTCTGTATGAGATATTTTCAATGATGATTTACTT 31302
 QY 4141 TAATC 4145
 Db 31303 TAATC 31307

RESULT 10
 AAT10115
 ID AAT10115 standard; cDNA; 4145 BP.
 XX
 AC AAT10115:
 XX
 DT 13-MAY-1996 (first entry)
 XX
 DE Nitric oxide synthase cDNA clone pHINOS.
 XX
 KW Inducible nitric oxide synthase; iNOS; hepatocyte; gene therapy;
 XX
 KM vascular occlusive disease; cancer; infection; ds.
 XX
 OS Homo sapiens.
 OS
 FH Key Location/Qualifiers
 FT CDS 207..368
 FT /*tag= a
 PN W09600006-A1.
 XX
 PD 04-JAN-1996.
 XX
 PF 20-JUN-1995; 95WO-0507849.
 XX
 PR 24-JUN-1994; 94US-0265046.
 XX
 PA (VPI-) UNIV PITTSBURGH.
 XX
 PI Billiar TR, Geller DA, Nussler AK, Simmons RL, Tzeng Z;
 DR WPI; 1996-068641/07.
 DR P-PSDB; AAR88464.
 XX
 PT Inducible nitric oxide synthase gene - useful in gene therapy to
 PS treat, e.g. vascular occlusive disease and cancer
 PS
 PS Claim 72: Page 53-58; 91pp; English.
 CC A cDNA clone (AAT10115), designated pHINOS, codes for the human
 CC hepatocyte inducible nitric oxide synthase (iNOS = AAR88464). It was
 CC obt. by isolating mRNA from hepatocytes induced in vitro for iNOS
 CC biosynthesis, preparing a cDNA library in a phage lambda Zap II
 CC vector, and screening with a cross-species iNOS probe. The cDNA can
 CC be used to prepare iNOS for therapeutic use. Alternatively, it is
 CC used in gene therapy strategies for treatment of vascular occlusive
 CC disease associated with atherosclerosis, vascular bypass and diabetes
 CC mellitus, tumor cell growth, and microbial infections.
 CC
 SQ Sequence 4145 BP; 968 A; 1205 C; 1124 G; 848 T; 0 other;

Query Match 97.5%; Score 4043; DB 17; Length 4145;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 4143; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 CTGCTTAAATCTCTGCGCCACCTTTGATGAGGGAGTGGGCACTTCTAGACAGTCCG 60
 DB 1 CTGCTTAAATCTCTGCGCCACCTTTGATGAGGGAGTGGGCACTTCTAGACAGTCCG 60

QY 61 AAGTTCGAAGGACAGGTCTCTGCTGCTTGAAGTCTTCTTACCCGGGGAGGACAGTGC 120
 DB 61 AAGTTCGAAGGACAGGTCTCTGCTGCTTGAAGTCTTCTTACCCGGGGAGGACAGTGC 120

QY 121 AGCCAGCTGCAAGGCCCAAGTGAAGAACATCTGAGCTCAATTCAGATAAGTACATAA 180
 DB 121 AGCCAGCTGCAAGGCCCAAGTGAAGAACATCTGAGCTCAATTCAGATAAGTACATAA 180

QY 181 GTGACCTCTTGTAAAGCCATAGAGATGGCTGCTTGTGAATTTCTGTCAAGACA 240
 DB 181 GTGACCTCTTGTAAAGCCATAGAGATGGCTGCTTGTGAATTTCTGTCAAGACA 240

QY 241 AATTCACACAGTATGCAATGATGGGAAAAGACATCAACACATGTGAGAAAGCCC 300
 DB 241 AATTCACACAGTATGCAATGATGGGAAAAGACATCAACACATGTGAGAAAGCCC 300

QY 301 CCGTGGCCACCTCCAGTCCAGTGAACAGATGACCTTCAGTATCACAACCTCAGCAAGC 360
 DB 301 CCGTGGCCACCTCCAGTCCAGTGAACAGATGACCTTCAGTATCACAACCTCAGCAAGC 360

QY 361 AGCAAAATGATGCCCCCGAGCCCTCTGTGAGAGACGGGAAAAGTCTCCAAATCTCTGG 420
 DB 361 AGCAAAATGATGCCCCCGAGCCCTCTGTGAGAGACGGGAAAAGTCTCCAAATCTCTGG 420

QY 421 TCAACCTGATGCAACCCCATTTGCTCTCCACAGGACATGAGATGCAAAATCTGGGCA 480
 DB 421 TCAACCTGATGCAACCCCATTTGCTCTCCACAGGACATGAGATGCAAAATCTGGGCA 480

QY 481 GCGGATGACTTTCACAGACACTTTCACCTAAGGCCAAGGATTTTAACTTGCAAGT 540
 DB 481 GCGGATGACTTTCACAGACACTTTCACCTAAGGCCAAGGATTTTAACTTGCAAGT 540

QY 541 CCAATTCCTGCTGGGGTCCATTTATGATCTCCAAAGTTTACAGAGAGACCCAGGACA 600
 DB 541 CCAATTCCTGCTGGGGTCCATTTATGATCTCCAAAGTTTACAGAGAGACCCAGGACA 600

QY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATCGAATTTGTCAACCAATATTACG 660
 DB 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATCGAATTTGTCAACCAATATTACG 660

QY 661 GCTCCTTCAAGAGCAAAATATAGAGAACATCTGGCCAGGAGTGAACCGGTTAAACAAGG 720
 DB 661 GCTCCTTCAAGAGCAAAATATAGAGAACATCTGGCCAGGAGTGAACCGGTTAAACAAGG 720

QY 721 AGATGAAGAACAGAGACTACCACTAGAGGAGATGACTATCTTCCACCAAGC 780
 DB 721 AGATGAAGAACAGAGACTACCACTAGAGGAGATGACTATCTTCCACCAAGC 780

QY 781 AAGCCTGGCGCAATGCCACAGCTGCATTTGGAGAGATCCAGTGTCCAACCTGCAGGCTCT 840
 DB 781 AAGCCTGGCGCAATGCCACAGCTGCATTTGGAGAGATCCAGTGTCCAACCTGCAGGCTCT 840

QY 841 TCGATGCCCGCAGCTGTTCCTCACTGCCGGGAAATGTTTGAACACATCTGCAGACAGTGC 900
 DB 841 TCGATGCCCGCAGCTGTTCCTCACTGCCGGGAAATGTTTGAACACATCTGCAGACAGTGC 900

QY 901 GTTACTTCAGCAACATGAGCAACATCAGTGGGCAATACGCTGTCCCGCAGGAGGTG 960
 DB 901 GTTACTTCAGCAACATGAGCAACATCAGTGGGCAATACGCTGTCCCGCAGGAGGTG 960

QY 961 ATGCAAGCAGAGACTTCCGGGTGTGGAATGCTCAGCTCAGCTATCCGCTATGCTGCTACAG 1020
 DB 961 ATGCAAGCAGAGACTTCCGGGTGTGGAATGCTCAGCTCAGCTATCCGCTATGCTGCTACAG 1020

QY 1021 TGCCAGATGAGCATATCAGAGGGGACCTCGCAACGTGGAATTCATCAGCTGTGATCG 1080

DB 1021 TGCCAGATGAGCATATCAGAGGGGACCCCGCAACGTGGAATTCATCAGCTGTGATCG 1080

QY 1081 ACTTGGGCTGGAAGCCCAAGTACGGCCGCTTGATGTGTCTCCCTGCTCTGCAGGCCA 1140
 DB 1081 ACTTGGGCTGGAAGCCCAAGTACGGCCGCTTGATGTGTCTCCCTGCTCTGCAGGCCA 1140

QY 1141 ATGGCGGTGACCCCTGAGCTCTTGAAATCCACCTGACCTTGTGCTGAGTGGGACATG 1200
 DB 1141 ATGGCGGTGACCCCTGAGCTCTTGAAATCCACCTGACCTTGTGCTGAGTGGGACATG 1200

QY 1201 AACATCCCAATATGAGTGTGCGGAACTGAGCTAAATGTGTAACGCTGCTGAG 1260
 DB 1201 AACATCCCAATATGAGTGTGCGGAACTGAGCTAAATGTGTAACGCTGCTGAG 1260

QY 1261 TGCCCAACATGCTGCTTGAAGTGGGGGCGCTGGAAGTCCAGGGGAGCCCTCAATGGCT 1320
 DB 1261 TGCCCAACATGCTGCTTGAAGTGGGGGCGCTGGAAGTCCAGGGGAGCCCTCAATGGCT 1320

QY 1321 GTTACATGGGACAGAGATCGGAGTCCGGAGCTTCTGTGACGTCCAGGCTCAACATCC 1380
 DB 1321 GTTACATGGGACAGAGATCGGAGTCCGGAGCTTCTGTGACGTCCAGGCTCAACATCC 1380

QY 1381 TGAAGAAAGTGGGACAGAAATGGGCTTGAAACGACAGCTGGCTGCTGGAAG 1440
 DB 1381 TGAAGAAAGTGGGACAGAAATGGGCTTGAAACGACAGCTGGCTGCTGGAAG 1440

QY 1441 ACCAGGCTGCTGTGATCAACATTTGCTGATCCATGTTTGAAGAGCAAGATGGA 1500
 DB 1441 ACCAGGCTGCTGTGATCAACATTTGCTGATCCATGTTTGAAGAGCAAGATGGA 1500

QY 1501 CCATCATGAGACACACACTGGGCTGCAAGATCTCTATGAAATGCAATGCAATGAAATAC 1560
 DB 1501 CCATCATGAGACACACACTGGGCTGCAAGATCTCTATGAAATGCAATGCAATGAAATAC 1560

QY 1561 GGTCCGCTGGGGCTGCGGCAAGATGATGATGCTGCTCCCTCCATGCTGGGAGCA 1620
 DB 1561 GGTCCGCTGGGGCTGCGGCAAGATGATGATGCTGCTCCCTCCATGCTGGGAGCA 1620

QY 1621 TCACCCCGTGTTCACACAGAGATGCTGACCTGCTGCTCTTCTACTACTATC 1680
 DB 1621 TCACCCCGTGTTCACACAGAGATGCTGACCTGCTGCTCTTCTACTACTATC 1680

QY 1681 AGGTAGAGGCTGGAAGAACCCATGCTGCGAGAGACAGAGAGGAGACCCAGAGAGAG 1740
 DB 1681 AGGTAGAGGCTGGAAGAACCCATGCTGCGAGAGACAGAGAGGAGACCCAGAGAGAG 1740

QY 1741 AGATTCATTTGAAGTCTTGGTCAAGCTGTGCTCTTCTGCTGTATGCTGATGCCAAGA 1800
 DB 1741 AGATTCATTTGAAGTCTTGGTCAAGCTGTGCTCTTCTGCTGTATGCTGATGCCAAGA 1800

QY 1801 CAATGGGCTCCGAGTCAAGTCCACCATCTCTTTCGACAGAGAGAGGAAATCAGAGG 1860
 DB 1801 CAATGGGCTCCGAGTCAAGTCCACCATCTCTTTCGACAGAGAGAGGAAATCAGAGG 1860

QY 1861 CGCTGGCTTGGGACCTTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGTTGTCTGA 1920
 DB 1861 CGCTGGCTTGGGACCTTGGGGGCTTATTCAGCTGTGCTTCAACCCCAAGTTGTCTGA 1920

QY 1921 TGAATGAATACAGCTGAGCTGTCTTGAGAGAGAAAGGCTGCTGTTGGGTGAGACAGTA 1980
 DB 1921 TGAATGAATACAGCTGAGCTGTCTTGAGAGAGAAAGGCTGCTGTTGGGTGAGACAGTA 1980

QY 1981 CGTTGGCAATGAGAGCTGCGCTGGCAATGAGAGAAATGGAAGAAATGCTCTTCAATG 2040
 DB 1981 CGTTGGCAATGAGAGCTGCGCTGGCAATGAGAGAAATGGAAGAAATGCTCTTCAATG 2040

QY 2041 TGAAGAGCTCAACCAATTCAGTACGCTGTGTTGGCTCGGCTCCAGCATGTAC 2100
 DB 2041 TGAAGAGCTCAACCAATTCAGTACGCTGTGTTGGCTCGGCTCCAGCATGTAC 2100

QY 2101 CTGCGTTCCTGCGCTTGTGCTCATGATGATGAGAGCTGTCCACCTGCGGGGCTCTC 2160

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Db 2101 CTGGGTTCTGCGCCTTGTCTCATGATGATCAGAGCTGTCCACCTGGGGGCTCTMC 2160
QY 2161 AGCTACCCCGATGGGAGAGGGGATGAGCTGAGTGGGAGAGAGAGCCCTTCCGACCT 2220
Db 2161 AGCTACCCCGATGGGAGAGGGGATGAGCTGAGTGGGAGAGAGAGCCCTTCCGACCT 2220
QY 2221 GGGCCGTGCAACCTTCAAGGAGGAGCTGTGAGCTTTGATGTCCGAGGCAACAGCACA 2280
Db 2221 GGGCCGTGCAACCTTCAAGGAGGAGCTGTGAGCTTTGATGTCCGAGGCAACAGCACA 2280
QY 2281 TTCAGATGCCCAAGCTTACACCTTCCATTTGAGCTGGGAGCCCGCACCATAAGGCTCG 2340
Db 2281 TTCAGATGCCCAAGCTTACACCTTCCATTTGAGCTGGGAGCCCGCACCATAAGGCTCG 2340
QY 2341 TGCAGAGCTCAGAGCTTTGAGCTCAGCAAGGCTTGAAGAGATGATGATGATGATGATGAT 2400
Db 2341 TGCAGAGCTCAGAGCTTTGAGCTCAGCAAGGCTTGAAGAGATGATGATGATGATGATGAT 2400
QY 2401 TGTTCACCATGAGGCTCAATCTCGGAGAAATCTACAAAGTCCGACATCCAGCCGTGCA 2460
Db 2401 TGTTCACCATGAGGCTCAATCTCGGAGAAATCTACAAAGTCCGACATCCAGCCGTGCA 2460
QY 2461 CCATCTGTGTGAGTCTCTCTGTAGAGTGGCCAGAGGCTTGAATCTGAGGAGGAGGAGC 2520
Db 2461 CCATCTGTGTGAGTCTCTCTGTAGAGTGGCCAGAGGCTTGAATCTGAGGAGGAGGAGC 2520
QY 2521 ACCTTGGGGTTTGGCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2580
Db 2521 ACCTTGGGGTTTGGCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2580
QY 2581 TGGATGGGCCCCACACCCACAGAGAGTGGCCCTGAGAGAGGAGGAGGAGGAGGAGGAGGAG 2640
Db 2581 TGGATGGGCCCCACACCCACAGAGAGTGGCCCTGAGAGAGGAGGAGGAGGAGGAGGAGGAG 2640
QY 2641 ACTGGGTACAGTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2700
Db 2641 ACTGGGTACAGTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2700
QY 2701 CGGAGATACACACACCCCAACCCAGCTGTCTCTCAAAAGCTGGCCAGAGTGGCCACAG 2760
Db 2701 CGGAGATACACACACCCCAACCCAGCTGTCTCTCAAAAGCTGGCCAGAGTGGCCACAG 2760
QY 2761 AAGAGCTGAGAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2820
Db 2761 AAGAGCTGAGAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2820
QY 2821 AGTTACCAACAGAGCCCAATTCCTGAGAGTGTAGAGAGTTCCTGCTCCGAGGTGT 2880
Db 2821 AGTTACCAACAGAGCCCAATTCCTGAGAGTGTAGAGAGTTCCTGCTCCGAGGTGT 2880
QY 2881 CTGCTGGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 2940
Db 2881 CTGCTGGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 2940
QY 2941 CTTCCCGGAGTACAGAGCCAGGAGATCCACTGAGTGTGGCCGAGGAGTCTACTACCA 3000
Db 2941 CTTCCCGGAGTACAGAGCCAGGAGATCCACTGAGTGTGGCCGAGGAGTCTACTACCA 3000
QY 3001 CCGGAGATGGCCAGGAGTCCCTGACACAGGAGTGTGACAGACATGGCTCAACAGGCTGA 3060
Db 3001 CCGGAGATGGCCAGGAGTCCCTGACACAGGAGTGTGACAGACATGGCTCAACAGGCTGA 3060
QY 3061 AGCCCCAAGAGCCAGTGGCTGTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 3120
Db 3061 AGCCCCAAGAGCCAGTGGCTGTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 3120
QY 3121 ATCCCTCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 3180
Db 3121 ATCCCTCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 3180
QY 3181 TCTGGAGAGAGAGGCTCTCATGACTCCAGACAGAGGAGTGTGGGAGGAGGAGGAGGAGG 3240
Db 3181 TCTGGAGAGAGAGGCTCTCATGACTCCAGACAGAGGAGTGTGGGAGGAGGAGGAGGAGG 3240
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QY 3241 TGTGTTTGGGTGGCCGCCGCCAGATGAGGAGCCATCTACAGAGGAGAGATGCTGAGA 3300
Db 3241 TGTGTTTGGGTGGCCGCCGCCAGATGAGGAGCCATCTACAGAGGAGAGATGCTGAGA 3300
QY 3301 TGGCCCAAGAGGGGCTCTCATGCGGTGACACAGGCTATTCGCCGCTCCGCGCAAGC 3360
Db 3301 TGGCCCAAGAGGGGCTCTCATGCGGTGACACAGGCTATTCGCCGCTCCGCGCAAGC 3360
QY 3361 CCAAGGCTCTATGTTTCAAGAGATCTCTGGGAGAGAGGAGGAGGAGGAGGAGGAGGAGG 3420
Db 3361 CCAAGGCTCTATGTTTCAAGAGATCTCTGGGAGAGAGGAGGAGGAGGAGGAGGAGGAGG 3420
QY 3421 TCCACAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3480
Db 3421 TCCACAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3480
QY 3481 CCCACACCCCTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3540
Db 3481 CCCACACCCCTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3540
QY 3541 ACTATTTCTTCAAGTCAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3600
Db 3541 ACTATTTCTTCAAGTCAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3600
QY 3601 TTCTTACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3660
Db 3601 TTCTTACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3660
QY 3661 CGCTGTAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3720
Db 3661 CGCTGTAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3720
QY 3721 GCTCTCATTTATCTGAGTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3780
Db 3721 GCTCTCATTTATCTGAGTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3780
QY 3781 CTCAAGTCTTATTTCTCTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3840
Db 3781 CTCAAGTCTTATTTCTCTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3840
QY 3841 GTAGACCCCTGATGATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3900
Db 3841 GTAGACCCCTGATGATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3900
QY 3901 AAGCAAAATCTTAAATGCCAGGCTGGGAGGAGTGGTGAAGATGGAACCTGCTGTGAGT 3960
Db 3901 AAGCAAAATCTTAAATGCCAGGCTGGGAGGAGTGGTGAAGATGGAACCTGCTGTGAGT 3960
QY 3961 GCACCACTTCAAGTGAAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 4020
Db 3961 GCACCACTTCAAGTGAAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 4020
QY 4021 TGTACAGTTATTTATGCTCTGTATTTAAAAAACTAACACCAGTCTGTCCCATGGCC 4080
Db 4021 TGTACAGTTATTTATGCTCTGTATTTAAAAAACTAACACCAGTCTGTCCCATGGCC 4080
QY 4081 ACTTGGGCTTCCCTGTATGATTTCTTATGAGATATTTTCAATGAATGCAATTTACTT 4140
Db 4081 ACTTGGGCTTCCCTGTATGATTTCTTATGAGATATTTTCAATGAATGCAATTTACTT 4140
QY 4141 TAATC 4145
Db 4141 TAATC 4145
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RESULT 11
AA077700 standard; cDNA: 4164 BP.
AA077700;
AC
XX
XX
DT 09-MAY-1995 (first entry)

XX DE Nitric-oxide-synthase pBSHSINOS clone.
 XX KM Nitric-oxide-synthase; NO-synthase; NOS; chondrocyte;
 KM Interleukin-1-beta; pBSHSINOS; arthritis; hypertension;
 KM septic shock; inflammation; ischemia; dementia; obesity; tumor;
 KM agonist; antagonist; vector; CHO; Chinese hamster ovary;
 KM cell culture; ds.
 XX OS Homo sapiens.
 XX FH Key location/Qualifiers
 FT CDS 226..3687
 FT /*tag= a
 PN W09423038-A.
 XX PD 13-OCT-1994.
 XX PF 25-MAR-1994; 94WO-GB00621.
 XX PR 26-MAR-1993; 93GB-0006386.
 XX PA (WELL) WELLCOME FOUND LTD.
 XX PI Charles IG, Moncada SE, Palmer RMJ, Moncada S;
 DR WPI; 1994-333198/41.
 DR P-PSDB; AAR63206.
 XX PT New human inducible nitric oxide synthase - useful for
 PT identifying enzyme inhibitors and stimulators, and for diagnosis
 PT and treatment of e.g. viral infections or tumours
 PS Disclosure; Page 25-31; 42pp; English.
 XX XX Human chondrocytes were incubated with interleukin-1-beta to induce
 CC nitric-oxide-synthase. cDNA was generated and used to construct a
 CC library in lambda ZAPIT. This was screened with a 650 bp fragment of
 CC mouse inducible NO-synthase cDNA to identify the full-length clone
 CC pBSHSINOS. The insert was transferred to pSVL to give a vector
 CC capable of expressing NO-synthase in CHO cells under control of a
 CC heterologous constitutive promoter.
 XX SQ Sequence 4164 BP; 974 A; 1210 C; 1127 G; 853 T; 0 other;
 Query Match 84.0%; Score 3482; DB 15; Length 4164;
 Best Local Similarity 99.7%; Pred. No. 0;
 Matches 4132; Conservative 0; Mismatches 13; Indels 0; Gaps 0;
 QY 1 CTGCTTTAAATCTCTCGGCACTTTGATGAGGGGAGTGGCACTTCTAGACAGTCCG 60
 DB 20 GTGCTTTAAATCTCTCGGCACTTTGATGAGGGGAGTGGCACTTCTAGACAGTCCG 79
 QY 61 AAGTCTCAAGGCACAGTCTCTCTGTTGACTGTCTTACCCGGGGAGGACAGTGC 120
 DB 80 AAGTCTCAAGGCACAGTCTCTCTGTTGACTGTCTTACCCGGGGAGGACAGTGC 139
 QY 121 AGCCAGCTGCAAGCCCAAGTGAAGAACATCTGAGCTCAATCCAGATAAGTGAATAA 180
 DB 140 AGCCAGCTGCAAGCCCAAGTGAAGAACATCTGAGCTCAATCCAGATAAGTGAATAA 199
 QY 181 GTGACCTGCTTTGTAAGGCATAGAGATGCCCTGTCTTGGAAATTTCTGTTCAAGACA 240
 DB 200 GTGACCTGCTTTGTAAGGCATAGAGATGCCCTGTCTTGGAAATTTCTGTTCAAGACA 259
 QY 241 AATTCACACAGTATGATGATGGGAAAAAGACATCAACAAATGTGAGAAAGCC 300
 DB 260 AATTCACACAGTATGATGATGGGAAAAAGACATCAACAAATGTGAGAAAGCC 319
 QY 301 CCTGTGCAACCTTCAGTCCAGTGAACAGAGATGACCTTCAGTATCAACAACTCAGCAAGC 360
 DB 320 CCTGTGCAACCTTCAGTCCAGTGAACAGAGATGACCTTCAGTATCAACAACTCAGCAAGC 379

QY 361 AGCAGATGAGTCCCGGAGCCCGGCGTGGAGAGGGGAAAAAGATCTCCAGATCTCGG 420
 DB 380 AGCAGATGAGTCCCGGAGCCCGGCGTGGAGAGGGGAAAAAGATCTCCAGATCTCGG 439
 QY 421 TCAACCTGAGTGAACACCCCATTTGCTCCCGCAGGATGTGAGATCAAAAATGSGGCA 480
 DB 440 TCAACCTGAGTGAACACCCCATTTGCTCCCGCAGGATGTGAGATCAAAAATGSGGCA 499
 QY 481 GCGGATGACTTTCCAAAGACACATTCACATTAAGGCAAAAGGATTTAATGTGAGGT 540
 DB 500 GCGGATGACTTTCCAAAGACACATTCACATTAAGGCAAAAGGATTTAATGTGAGGT 559
 QY 541 CCAAAATCTGCGGGGTGCTATTAAGTCTCCCAAAAGTTTGACAGAGAGACCCAGGACA 600
 DB 560 CCAAAATCTGCGGGGTGCTATTAAGTCTCCCAAAAGTTTGACAGAGAGACCCAGGACA 619
 QY 601 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCAACCAATATTAC 660
 DB 620 AGCCTACCCCTCCAGATGAGCTTCTACCTCAAGCTATGCAATTTGTCAACCAATATTAC 679
 QY 661 GCTCCCTCAAGAGGCAAAATAGAGGAACATCTGGCAGGGTGGAGCCGTTAACAAAG 720
 DB 680 GCTCCCTCAAGAGGCAAAATAGAGGAACATCTGGCAGGGTGGAGCCGTTAACAAAG 739
 QY 721 AGATGAAGAAACACAGAAACCTACCAACTGACGGAGATGAGCTATCTTCCGCAACAAAG 780
 DB 740 AGATGAAGAAACACAGAAACCTACCAACTGACGGAGATGAGCTATCTTCCGCAACAAAG 799
 QY 781 AGGCTTGGGGCAATGCCCAAGCTCATTTGGAGGATTCAGTGTCCAAAGCTGAGGCT 840
 DB 800 AGGCTTGGGGCAATGCCCAAGCTCATTTGGAGGATTCAGTGTCCAAAGCTGAGGCT 859
 QY 841 TCGATGCCCGCAGCTGTTCTCACTGCGCGGGAATTTGAAACATCTGACAGACAGTGC 900
 DB 860 TCGATGCCCGCAGCTGTTCTCACTGCGCGGGAATTTGAAACATCTGACAGACAGTGC 919
 QY 901 GTTACTCCCAACAAATGCAATCAGTGGGCAATCAGCTGTCTTCCCGCAGGAGATG 960
 DB 920 GTTACTCCCAACAAATGCAATCAGTGGGCAATCAGCTGTCTTCCCGCAGGAGATG 979
 QY 961 ATGCAAGACGATCCCGGCTGTGGAATGCTCAGTCTATCCGCTATGCTGCTACCA 1020
 DB 980 ATGCAAGACGATCCCGGCTGTGGAATGCTCAGTCTATCCGCTATGCTGCTACCA 1039
 QY 1021 TGCAGATGGCAGCATCAGAGGGGACCTGCCAAGCTGCAATCTACGCTGTGCATCG 1080
 DB 1040 TGCAGATGGCAGCATCAGAGGGGACCTGCCAAGCTGCAATCTACGCTGTGCATCG 1099
 QY 1081 ACCTGGGCTGGAAGCCCAAGTACGGCGCTGTGATGTGTCCCGCTGCTGCAAGCCA 1140
 DB 1100 ACCTGGGCTGGAAGCCCAAGTACGGCGCTGTGATGTGTCCCGCTGCTGCAAGCCA 1159
 QY 1141 ATGGCGGTGACCTGTGACTTTCGAATCCACATGACCTTGTGCTGAGTGGCCATG 1200
 DB 1160 ATGGCGGTGACCTGTGACTTTCGAATCCACATGACCTTGTGCTGAGTGGCCATG 1219
 QY 1201 AACATCCCAATATGAGTGTTCGGGAACCTGAGAGTAAAGTGTACCGCCCTGCGAG 1260
 DB 1220 AACATCCCAATATGAGTGTTCGGGAACCTGAGAGTAAAGTGTACCGCCCTGCGAG 1279
 QY 1261 TGGCCAAACATGTGCTTGAAGTGGGCGCTGAGTGTCCAGAGTTCCTTCAATAGCT 1320
 DB 1280 TGGCCAAACATGTGCTTGAAGTGGGCGCTGAGTGTCCAGAGTTCCTTCAATAGCT 1339
 QY 1321 GGTACATGGGCACAGAGATCGAGTCCGGACTTGTGACGTCACGGCTTACACATCC 1380
 DB 1340 GGTACATGGGCACAGAGATCGAGTCCGGACTTGTGACGTCACGGCTTACACATCC 1399
 QY 1381 TGGAGAGAGTGGGCAGAGAGATGGGCTGTGAAGCGACAAAGCTGCTGTGGAAG 1440
 DB 1400 TGGAGAGAGTGGGCAGAGAGATGGGCTGTGAAGCGACAAAGCTGCTGTGGAAG 1459

QY	1441	ACGAGCGTGTGGTGAATCAACAATGCTGTATCCATAGTTTTCAGAAAGAAATGTA	1500
Db	1460	ACCAAGCGTGTGGTGAATCAAAATGCTGTGTCCATAGTTTTCAGAAAGCAATGTGA	1519
QY	1501	CCATATGAGACACACACTCGCGTGCAGAAATCCCTCAATGAAGTACATGCAGATGAATCC	1560
Db	1520	CCATATGAGACACACACTCGCGTGCAGAAATCCCTCAATGAAGTACATGCAGATGAATCC	1579
QY	1561	GSTCCCGTGGGAGCTGCCCGGCAAGCTGATTTTGCTGCTCCCTCCATGTCGGAGCA	1620
Db	1580	GGTCCCGTGGGAGCTGCCCGGCAAGCTGATTTTGCTGCTCCCTCCATGTCGGAGCA	1639
QY	1621	TCACCCCGTGTTCACACAGAGTGTGAACAGTCCCTGACCCCTTTCATACATTC	1680
Db	1640	TCACCCCGTGTTCACACAGAGTGTGAACAGTCCCTGACCCCTTTCATACATTC	1699
QY	1681	AGTAGAGGCGCTGGAAAAACCATGTCTGGCAGGACGAGAGGAGGCCAAGAACAG	1740
Db	1700	AGTAGAGGCGCTGGAAAAACCATGTCTGGCAGGACGAGAGGAGGCCAAGAACAG	1759
QY	1741	AGATTCCATTGAAAGCTGTGGTCAAGCGTGTCTTCCCTGTATGCTGATGCCAAGA	1800
Db	1760	AGATTCCATTGAAAGCTGTGGTCAAGCGTGTCTTCCCTGTATGCTGATGCCAAGA	1819
QY	1801	CAATGGCGTCCCGAGTACAGTACACATCCCTTTGCGACAGACAGAGAAATACAGG	1860
Db	1820	CAATGGCGTCCCGAGTACAGTACACATCCCTTTGCGACAGACAGAGAAATACAGG	1879
QY	1861	CGCTGGCGTGGGACCTGGGGCGCTTATACGTGTGCTTCACCCCAAGTGTGTGCA	1920
Db	1880	CGCTGGCGTGGGACCTGGGGCGCTTATACGTGTGCTTCACCCCAAGTGTGTGCA	1939
QY	1921	TGATTAAGTACAGGCTAGCTGCTGCTGAGAGAGAAAGCGTGTGTGGGGAGACATA	1980
Db	1940	TGATTAAGTACAGGCTAGCTGCTGCTGAGAGAGAAAGCGTGTGTGTGGTGTACACTA	1999
QY	1981	CGTTGGCAATGAGACTGCCCTTGCCATGAGAGAACTGAAAGATCGCTCTTACATGC	2040
Db	2000	CGTTGGCAATGAGACTGCCCTTGCCATGAGAGAACTGAAAGATCGCTCTTACATGC	2059
QY	2041	TGAAAGAGCTACAAACAATTCAGATAGCGTGTGGTGGCGTCCGAGCTCAGCATATGC	2100
Db	2060	TGAAAGAGCTACAAACAATTCAGATAGCGTGTGTGGTGGCGTCCGAGCTCAGCATATGC	2119
QY	2101	CTCGGTTCTGCGCCTTGTGTCATGACATTGATCAGAAAGCTGTCCACACTGGGGGCTCTC	2160
Db	2120	CTCGGTTCTGCGCCTTGTGTCATGATGATCAGAAAGCTGTCCACACTGGGGGCTCTC	2179
QY	2161	AGCTACCCGATGGGAGAGGGGATGAGCTCAGTGGAGGAGGAGGAGCCCTTCCGCACT	2220
Db	2180	AGCTACCCGATGGGAGAGGGGATGAGCTCAGTGGAGGAGGAGGAGGCTTCCGCACT	2239
QY	2221	GGGCGGTGCAAACTTCAGAGGACGCTGTGACAGCTTGTATGTCGAGGCAACAGCA	2280
Db	2240	GGGCGGTGCAAACTTCAGAGGACGCTGTGACAGCTTGTATGTCGAGGCAACAGCA	2299
QY	2281	TTTCAGATCCCAAGCTTAACCTCCAAATGTGACCTGGGAGCCCGACACATACAGCTCG	2340
Db	2300	TTTCAGATCCCAAGCTTAACCTCCAAATGTGACCTGGGAGCCCGACACATACAGCTCG	2359
QY	2341	TGCAGAGCTACAGCCTTTGGACCTCAGAAAGCCCTGAGCAGATGATGCAAGAGC	2400
Db	2360	TGCAGAGCTACAGCCTTTGGACCTCAGCAAGCCCTGAGCAGATGATGCAAGAGC	2419
QY	2401	TGTTACCATGAGGCTCAAAATCTGGCAGATCTACAAAGTCCGACATCCAGCCGTGCCA	2460
Db	2420	TGTTACCATGAGGCTCAAAATCTGGCAGATCTACAAAGTCCGACATCCAGCCGTGCCA	2479
QY	2461	CCATTCCTGGGAGAACTCTCTGTGAGAGTGGGCAAGGCCCTGAATCAATCGCCGGGAGAC	2520
Db	2480	CCATTCCTGGGAGAACTCTCTGTGAGAGTGGGCAABGCCCTGAATCAATCGCCGGGAGAC	2539
QY	2521	ACCTTGGGGTTTGCCAGGCAACGACGCGCCCTGTGTCAAAGCATCTCTGAGAGCATGG	2580

Db	2540	ACCTTGGGGGTTTGGCCAGAGCCAGCCAGCCGGCCCTGGTCCAAAGGATATCCGGAGCGAGTGG	2599
QY	2581	TGGATGGCCCCACACCACACAGCACTATGGGCGCTGGAGGACCTGGATGGAGTGGCACT	2640
Db	2600	TGGATGGCCCCACACCACACAGCACTATGGGCGCTGGAGGACCTGGATGGAGTGGCACT	2659
QY	2641	ACTGGGTCAGTGACAAAGAGCGTCCGCCCTGCTACTCAAGCCAGGCCCCCTACCTACTCC	2700
Db	2660	ACTGGGTCAGTGACAAAGAGCGTCCGCCCTGCTACTCAAGCCAGGCCCCCTACCTACTCC	2719
QY	2701	CGGATATACCAACACCCCAACCAGTGGTGGTCCAAAAGCTGGGCCAGGTGGCCACAG	2760
Db	2720	TGGATATACCAACACCCCAACCAGTGGTGGTCCAAAAGCTGGGCCAGGTGGCCACAG	2779
QY	2761	AAGACCTGAGAGACAGAGGCTGGAGGCCCTGTGGCCAGCCCTCAGAGTACACAGTGGGA	2820
Db	2780	AAGACCTGAGAGACAGAGGCTGGAGGCCCTGTGGCCAGCCCTCAGAGTACACAGTGGGA	2839
QY	2821	AGTTACCAACAGGCCCCACATCTCTGGAGTGTCTGAAGGATTTCCGTCCTCGCGGTGT	2880
Db	2840	AGTTACCAACAGGCCCCACATCTCTGGAGTGTCTGAAGGATTTCCGTCCTCGCGGTGT	2899
QY	2881	CTGCTGGCTTCTCTTCTCCAGTCCCACTTCTGAAGCCACAGGTTCTACTCTCAGCT	2940
Db	2900	CTGCTGGCTTCTCTTCTCCAGTCCCACTTCTGAAGCCACAGGTTCTACTCTCAGCT	2959
QY	2941	CTCTCCGGGATACAGGCCCCAGAGATCCACTGACTGTGGCCGTGTCACTACACACA	3000
Db	2960	CTCTCCGGGATACAGGCCCCAGAGATCCACTGACTGTGGCCGTGTCACTACACACA	3019
QY	3001	CCGGAGATGGCCAGAGGTCCTGTACACAGGTCGTGACAGCAATAGCTCAACACACTGGA	3060
Db	3020	CCGGAGATGGCCAGAGGTCCTGTACACAGGTCGTGACAGCAATAGCTCAACACACTGGA	3079
QY	3061	AGCCCAAGACCCAGTGCCTGCTTGTGTGGAGTCCACAGCGCTTCCACCTCCCGAGG	3120
Db	3080	AGCCCAAGACCCAGTGCCTGCTTGTGTGGAGTCCACAGCGCTTCCACCTCCCGAGG	3139
QY	3121	ATCCCTCCCATCTTGTGATCTCTATGGGGCTTGGCACAGGCATCGTGCCTTCCGCAATT	3180
Db	3140	ATCCCTCCCATCTTGTGATCTCTATGGGGCTTGGCACAGGCATCGTGCCTTCCGCAATT	3199
QY	3181	TCTGGCAGCAACGGCTCCATGACTCCCGACACAAAGGAGTGGGGAGGCCCATGAGACT	3240
Db	3200	TCTGGCAGCAACGGCTCCATGACTCCCGACACAAAGGAGTGGGGAGGCCCATGAGACT	3259
QY	3241	TGTGTGTGGGTTGGCGGCCGCCAGATGAGGACCACTATTCACAGAGAGAGATGCTGGAGA	3300
Db	3260	TGTGTGTGGGTTGGCGGCCGCCAGATGAGGACCACTATTCACAGAGAGAGATGCTGGAGA	3319
QY	3301	TGGCCCAAGAGGGGGTCTGATGTCGGGTGCACACACCTATTCCGCTCGCTGGCAGC	3360
Db	3320	TGGCCCAAGAGGGGGTCTGATGTCGGGTGCACACACCTATTCCGCTCGCTGGCAGC	3379
QY	3361	CCAGGCTATATGTTACAGACATCTGCGGACGACGCTGGCCACGAGGTGCTCGTGTGC	3420
Db	3380	CCAGGCTATATGTTACAGACATCTGCGGACGACGCTGGCCACGAGGTGCTCGTGTGC	3439
QY	3421	TCCACAAGGACCCAGGGCCACTGTATTTGGGGGATGGGGCATGGCCCGGGAGCGGG	3480
Db	3440	TCCACAAGGACCCAGGGCCACTGTATTTGGGGGATGGGGCATGGCCCGGGAGCGGG	3499
QY	3481	CCACACCCCTGAAGCACTGGTGGCTCCCAAGCTGAATTTGAATGAGAGCAAGTCCGAG	3540
Db	3500	CCACACCCCTGAAGCACTGGTGGCTCCCAAGCTGAATTTGAATGAGAGCAAGTCCGAG	3559
QY	3541	ACTATTCTTTCACGCTCAAGAGCCAGAGGCGCTATACAGAAATATCTTTGGTGTGTAT	3600
Db	3560	ACTATTCTTTCACGCTCAAGAGCCAGAGGCGCTATACAGAAATATCTTTGGTGTGTAT	3619
QY	3601	TTTCCTTACGAGCCAAAGAGACAGGTTGGCTGTGAGCCCAAGCCAGCTGGAGATGTAG	3660

QY	671	AGAGCGAAATAATAGAGACATCTGGCCAGGGTGGAAACCGTAACAAAGGAGATGAAGAC	730
Db	661	AGAGGCAAAATATAGAGAACATCTGGCCAGGGTGGAAACCGTAACAAAGGAGATGAAGAC	720
QY	731	AACGAGAACCTACCACACTGACGGGAGATAGCTCATCTTTCGGCACCAAGCAGGCGCTGGC	750
Db	721	AACGAGAACCTACCACACTGACGGGAGATAGCTCATCTTTCGGCACCAAGCAGGCGCTGGC	780
QY	791	CAATGCCCCACGCTGCATTGGGAGGATCCAGTGGTCCAACTGCAAGTCTTCATGTGCCG	850
Db	781	CAATGCCCCACGCTGCATTGGGAGGATCCAGTGGTCCAACTGCAAGTCTTCATGTGCCG	840
QY	851	CAGCTGTTCACATGCCCGGGAAATGTTTGAACAACATCTGCAGACACGTCGTACTCTCAC	910
Db	841	CAGCTGTTCACATGCCCGGGAAATGTTTGAACAACATCTGCAGACACGTCGTACTCTCAC	900
QY	911	CAACATATGCGACATCAGTGGCCGCTACCGCTGTTCCCCAGCGGAGTATGGCAAGCA	970
Db	901	CAACATATGCGACATCAGTGGCCGCTACCGCTGTTCCCCAGCGGAGTATGGCAAGCA	960
QY	971	CGACTTCGGGGTGGGAATTCCTAGCTCATCCGCGTATGCTGGCTTACAGATCCAGATGG	1030
Db	961	CGACTTCGGGGTGGGAATTCCTAGCTCATCCGCGTATGCTGGCTTACAGATCCAGATGG	1020
QY	1031	CAGCATAGAGGGGAGCCCTGCGCAACCTGGAAATTCACAGCTGATGCATACGACCTGGGCTG	1090
Db	1021	CAGCATAGAGGGGAGCCCTGCGCAACCTGGAAATTCACAGCTGATGCATACGACCTGGGCTG	1080
QY	1091	GAACCCCAATAGTACGGCCGCTTCGATGTGGTCCCGCTGGTCTCTGCAGGCGCAATGGCCGTGA	1150
Db	1081	GAACCCCAATAGTACGGCCGCTTCGATGTGGTCCCGCTGGTCTCTGCAGGCGCAATGGCCGTGA	1140
QY	1151	CCCTGACCTCTTGGAATCCCACTACCTTGTGCTTGAAGGGGCGCATAGAAATCCCA	1210
Db	1141	CCCTGACCTCTTGGAATCCCACTACCTTGTGCTTGAAGGGGCGCATAGAAATCCCA	1200
QY	1211	ATACGAGTGGTTTGGGAACTGGAGCTAAAGTGTACGCGCTCGCTGCATGTGGCCAACT	1270
Db	1201	ATACGAGTGGTTTGGGAACTGGAGCTAAAGTGTACGCGCTCGCTGCATGTGGCCAACT	1260
QY	1271	GCTCTTGAGGTGGGCGGCGCTGGAGTTCCCAAGGATGCCCTTCATGTGCTGTATACAGG	1330
Db	1261	GCTCTTGAGGTGGGCGGCGCTGGAGTTCCCAAGGATGCCCTTCATGTGCTGTATACAGG	1320
QY	1331	CACAGATGTGGAGTCCGGGAGCTTGTGTACGCTCCAGCGCTTCAACATCTCTGGAGGAAGT	1390
Db	1321	CACAGATGTGGAGTCCGGGAGCTTGTGTACGCTCCAGCGCTTCAACATCTCTGGAGGAAGT	1380
QY	1391	GGGAGAGGAATGGGCGCTGGAAACGCAACAGCTGGGCTCGCTGTGGAAAGACAGCGCTGT	1450
Db	1381	GGGAGAGGAATGGGCGCTGGAAACGCAACAGCTGGGCTCGCTGTGGAAAGACAGCGCGTGT	1440
QY	1451	CGTTGAGATCAACATTCCTCTGTGATCCATATGTTTTCGAAGCAGAAATGTGACATCATGGA	1510
Db	1441	CGTTGAGATCAACATTCCTCTGTGATCCATATGTTTTCGAAGCAGAAATGTGACATCATGGA	1500
QY	1511	CCACCACTCGGCTGCAGATCTCTTCATGAAGTACATGACGAATGAAATACCGGCTCCGTGG	1570
Db	1501	CCACCACTCGGCTGCAGATCTCTTCATGAAGTACATGACGAATGAAATACCGGCTCCGTGG	1560
QY	1571	GGGCGCGCCGCGACATGGAATTTGGGCGGCGCTCCCATATGTGTGGGAGCATCACCCCGT	1630
Db	1561	GGGCGCGCCGCGACATGGAATTTGGGCGGCGCTCCCATATGTGTGGGAGCATCACCCCGT	1620
QY	1631	GTTTTCACGAGAGATGCTGAACATAGTCTGTGCCCTTTCATCTACTATATCAGGTAGAGGC	1690
Db	1621	GTTTTCACGAGAGATGCTGAACATAGTCTGTGCCCTTTCATCTACTATATCAGGTAGAGGC	1680
QY	1691	CTGGAATAACCATATGCTGGAGAGCAAGAAAGCGGAGACCCCAAGAAAGAGATTTCCATT	1750
Db	1681	CTGGAATAACCATATGCTGGAGAGCAAGAAAGCGGAGACCCCAAGAAAGAGATTTCCATT	1740

QY	1751	GAA	GTCTTG	GGTAA	AGCTGT	GTCTTT	TG	CCCTG	GTAT	AGCTG	ATG	CGCCAG	CA	AAATGG	GGCTC	1810														
Db	1741	GAA	AGCTTG	GGTAA	AGCTGT	GTCTTT	TG	CCCTG	GTAT	AGCTG	ATG	CGCCAG	CA	AAATGG	GGCTC	1800														
QY	1811	CCG	AGTCA	GAGTCA	CCATCT	CTTTG	CG	ACAG	AGACAG	AGAAAT	ATG	ACAG	GGCG	GGCGCTG	1870															
Db	1801	CCG	AGTCA	GAGTCA	CCATCT	CTTTG	CG	ACAG	AGACAG	AGAAAT	ATG	ACAG	GGCG	GGCGCTG	1860															
QY	1871	GG	ACCTGG	GGGGCTT	ATTTAG	CTG	AGCTGT	GCCTT	CA	ACCCCA	AGGTTG	TC	GCAT	GGAT	AA	1930														
Db	1861	GG	ACCTGG	GGGGCTT	ATTTAG	CTG	AGCTGT	GCCTT	CA	ACCCCA	AGGTTG	TC	GCAT	GGAT	AA	1920														
QY	1931	CAG	CTCA	GCCTG	CGCTGG	AGGAG	GA	AGCGCTG	GTGG	GTGG	ACCA	CTG	TTGG	CA	1990															
Db	1921	CAG	CTCA	GCCTG	CGCTGG	AGGAG	GA	AGCGCTG	GTGG	GTGG	ACCA	CTG	TTGG	CA	1980															
QY	1991	TG	GAG	ACTG	CCCTG	CGCTGG	AGGAG	GA	AGAAAT	GCCTT	CA	TGCTG	TA	GGAA	AGCT	2050														
Db	1981	TG	GAG	ACTG	CCCTG	CGCTGG	AGGAG	GA	AGAAAT	GCCTT	CA	TGCTG	TA	GGAA	AGCT	2040														
QY	2051	CA	ACA	CAAAAT	TCAG	GTAC	GCCTGT	GTGTT	TG	CGCTCG	GCCTC	AC	ATG	ATAC	CGGTTCTG	2110														
Db	2041	CA	ACA	CAAAAT	TCAG	GTAC	GCCTGT	GTGTT	TG	CGCTCG	GCCTC	AC	ATG	ATAC	CGGTTCTG	2100														
QY	2111	CG	CTTTG	CTCAT	TAC	ATTTAT	GAT	AGAA	AGCTGT	CTCC	AC	CTGG	GGGCTCT	CAG	CTAC	CCCC	2170													
Db	2101	CG	CTTTG	CTCAT	TAC	ATTTAT	GAT	AGAA	AGCTGT	CTCC	AC	CTGG	GGGCTCT	CAG	CTAC	CCCC	2160													
QY	2171	GAT	GGG	AGAA	AGGAT	GAT	AGCTC	AGTGG	GGCG	AG	GGGAG	GGGCTT	CC	CGAG	CTGG	GGCGT	2230													
Db	2161	GAT	GGG	AGAA	AGGAT	GAT	AGCTC	AGTGG	GGCG	AG	GGGAG	GGGCTT	CC	CGAG	CTGG	GGCGT	2220													
QY	2231	AAC	CTT	CA	AGG	CAG	CCCTG	TG	AGAG	AGTTT	ATG	TC	CG	AGG	CAAA	CAG	ACATTT	CAGAT	CCC	2290										
Db	2221	AAC	CTT	CA	AGG	CAG	CCCTG	TG	AGAG	AGTTT	ATG	TC	CG	AGG	CAAA	CAG	ACATTT	CAGAT	CCC	2280										
QY	2291	CA	AG	CTT	CA	CCTT	CA	ATG	TG	AGCT	GTGG	AG	CCG	C	CA	CT	AC	AGG	CTGT	GTG	CA	AG	ACTC	2350						
Db	2281	CA	AG	CTT	CA	CCTT	CA	ATG	TG	AGCT	GTGG	AG	CCG	C	CA	CT	AC	AGG	CTGT	GTG	CA	AG	ACTC	2340						
QY	2351	AC	AG	CTT	TG	GA	ACCT	TC	GA	AGG	CCGCT	C	AC	AC	CA	CT	AG	CA	TC	AG	CA	AG	AA	AG	CTT	CA	CCAT	2410		
Db	2341	AC	AG	CTT	TG	GA	ACCT	TC	GA	AGG	CCGCT	C	AC	AC	CA	CT	AG	CA	TC	AG	CA	AG	AA	AG	CTT	CA	CCAT	2400		
QY	2411	GAG	GC	TT	CA	AAAT	CT	CG	GA	GA	AT	CT	AC	AA	AT	CC	GA	AT	CC	GA	AT	CC	GA	AT	CC	GA	AT	CC	2470	
Db	2401	GAG	GC	TT	CA	AAAT	CT	CG	GA	GA	AT	CT	AC	AA	AT	CC	GA	AT	CC	GA	AT	CC	GA	AT	CC	GA	AT	CC	2460	
QY	2471	GGA	ACT	CT	CT	G	T	G	A	G	A	T	G	A	G	A	T	G	A	G	A	T	G	A	G	A	T	G	A	2530
Db	2461	GGA	ACT	CT	CT	G	T	G	A	G	A	T	G	A	G	A	T	G	A	G	A	T	G	A	G	A	T	G	A	2520
QY	2531	TTG	CC	CA	GG	CA	AG	CG	CG	CGCT	GG	TC	CA	AG	GC	AT	CT	CG	AG	CA	GT	GG	TC	CA	AG	GC	AT	CT	CG	2590
Db	2521	TTG	CC	CA	GG	CA	AG	CG	CG	CGCT																				

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Db 2821 CAGCCACATCTCTGGAGGTGCTAGAGAGTTCCGTCCTCGGGGTGTCTCTGGCTT 2880
QY 2891 CTTGCTTTCCAGAGTCCCAATTTCTGAAGCCAGGTTTCTACTCATGAGCTCTCCGGGA 2950
Db 2881 CTTGCTTTCCAGAGTCCCAATTTCTGAAGCCAGGTTTCTACTCATGAGCTCTCCGGGA 2940
QY 2951 TCACAGCCCAAGAGATCCACTGACTGTGGCCGTGTGCTACCTACACACCCAGAGATG 3010
Db 2941 TCACAGCCCAAGAGATCCACTGACTGTGGCCGTGTGCTACCTACACACCCAGAGATG 3000
QY 3011 CCAGGGTCCCTTGACACAGGTGCTGACACATGCTTCAACAGCTTGAAGCCCAAGA 3070
Db 3001 CCAGGGTCCCTTGACACAGGTGCTGACACATGCTTCAACAGCTTGAAGCCCAAGA 3060
QY 3071 CCCAGTCCCTGCTTTGTGGGAGATCCAGGCTTCCACCTCCCGAGAGATCCCTCCA 3130
Db 3061 CCCAGTCCCTGCTTTGTGGGAGATCCAGGCTTCCACCTCCCGAGAGATCCCTCCA 3120
QY 3131 TCTTGCATCTCTATGCGGCTTGCGACAGGATGTCCTTCCGCAATTTCTGCGAGCA 3190
Db 3121 TCTTGCATCTCTATGCGGCTTGCGACAGGATGTCCTTCCGCAATTTCTGCGAGCA 3180
QY 3191 ACGGTCATGATCTCCAGACACAAGGAGTGGGGAGCCGATACCTTGTGTGG 3250
Db 3181 ACGGTCATGATCTCCAGACACAAGGAGTGGGGAGCCGATACCTTGTGTGG 3240
QY 3251 GTGCCGCCGCCAGATGAGAGCCATCTACAGAGAGATGCTGAGATGGCCAGAA 3310
Db 3241 GTGCCGCCGCCAGATGAGAGCCATCTACAGAGAGATGCTGAGATGGCCAGAA 3300
QY 3311 GGGGGGTCGTCATGCGGTGACACAGCTATTCCTCCGCTGCTGCGACGCCAAGTCTA 3370
Db 3301 GGGGGGTCGTCATGCGGTGACACAGCTATTCCTCCGCTGCTGCGACGCCAAGTCTA 3360
QY 3371 TCTTCAAGACATCTCTGCGACAGAGTGGCCAGCGAGTGTCCGTTCTCCACAAGA 3430
Db 3361 TCTTCAAGACATCTCTGCGACAGAGTGGCCAGCGAGTGTCCGTTCTCCACAAGA 3420
QY 3431 GCCAGGCCACTTATGTTTGGGGGATGTGCGCATGTCGCCGGAGTGGCCACACCT 3490
Db 3421 GCCAGGCCACTTATGTTTGGGGGATGTGCGCATGTCGCCGGAGTGGCCACACCT 3480
QY 3491 GAAGCAGTGTGGGCTGCGCAAGCTGAATTAAGTGAAGAGAGTGTGAGATATTTCTT 3550
Db 3481 GAAGCAGTGTGGGCTGCGCAAGCTGAATTAAGTGAAGAGAGTGTGAGATATTTCTT 3540
QY 3551 TCAGCTCAAGAGCCAGAAAGCTATTCAGCAAGATATCTTGGTGTATTTCTTACGA 3610
Db 3541 TCAGCTCAAGAGCCAGAAAGCTATTCAGCAAGATATCTTGGTGTATTTCTTACGA 3600
QY 3611 GCGGAAGAGAGAGGTTGGCGGTGCGAGCCAGAGCTGAGATGTACGCCCTTGAG 3670
Db 3601 GCGGAAGAGAGAGGTTGGCGGTGCGAGCCAGAGCTGAGATGTACGCCCTTGAG 3660
QY 3671 GCTTACAGAGGAGGTTAAAGTGTCCGCGACAGAACTTAAGTGAAGCAGTGTGCAAT 3730
Db 3661 GCTTACAGAGGAGGTTAAAGTGTCCGCGACAGAACTTAAGTGAAGCAGTGTGCAAT 3720
QY 3731 ATCTGAGTTCACAGGAGGCTGGGAGATGGAGAAAGTATATCCCAAGCTCAAGTCTT 3790
Db 3721 ATCTGAGTTCACAGGAGGCTGGGAGATGGAGAAAGTATATCCCAAGCTCAAGTCTT 3780
QY 3791 ATTTCTCTACAGTGTCTCCCAATCAAGCCCTTACTGACCTCTTACAAAGTACACCT 3850
Db 3781 ATTTCTCTACAGTGTCTCCCAATCAAGCCCTTACTGACCTCTTACAAAGTACACCT 3840
QY 3851 GGATTGATGGAGGCTCCCTCTCAACATGAGGAGCTCCCTGCTTGGAGACAAATC 3910
Db 3841 GGATTGATGGAGGCTCCCTCTCAACATGAGGAGCTCCCTGCTTGGAGACAAATC 3900
QY 3911 TTAATGCCAGGCTGGGAGTGGTGAAGATGAACTTGTGTGATGACACACTTC 3970

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Db 3901 TTAATGCCAGGCTGGGAGTGGTGAAGATGAACTTGTGTGATGACACACTTC 3960
QY 3971 AAGTACCAACAGAGGAGTGTATGACACACTGTGTATTTACTGTCTGTGTACAGTTA 4030
Db 3961 AATTGACCAACAGAGGAGTGTATGACACACTGTGTATTTAACTGTGTGTACAGTTA 4020
QY 4031 TTTATGCTCTGTATTTAAAAAATCAACACCAAGCTGTTCCTCATGAGCC 4080
Db 4021 TTTATGCTCTGTATTTAAAAAATCAACACCAAGCTGTTCCTCATGAGCC 4070

RESULT 13
AA08434
ID AA08434 standard; DNA; 4062 BP.
XX
XX AA08434;
AC
XX 28-JUN-1999 (first entry)
DT
XX
XX Inducible nitric oxide synthase gene.
DE
XX Manganese containing superoxide dismutase; MnSOD; IDDM;
KW diabetes mellitus; treatment; therapy; nitric oxide; NO; beta cell;
KW fatty acids; lipotoxic; cytotoxic; cytokine; osteoporosis;
KW inflammatory disease; autoimmune disease; neurodegenerative disease;
KW ss.
XX
XX Homo sapiens.
OS
XX
XX Key Location/Qualifiers
EH 106..3567
FT /*tag= a
FT /product= "Nitric oxide synthase"
FT
XX
XX W0906059-A2.
XX
XX 11-FEB-1999.
PD
XX
XX 30-JUL-1998; 98MO-US15781.
PF
XX
XX 03-MAR-1998; 98US-0055092.
PR 30-JUL-1997; 97US-0055092.
XX
XX (BETA-) BETA-GENE INC.
XX (TEXA) UNIV TEXAS SYSTEM.
XX
XX Clark SA, Hohmeier H, Koyama K, Lee Y, Newgard CB;
XX Ohneda M, Shimabukuro, Thigpen A, Unger RH;
XX WPI; 1999-153448/13.
XX P-FSDB; AAW96322.
XX
XX Protection of mammalian cells against immunotoxicity or lipotoxicity
XX - used for treating, e.g. diabetes, obesity, wasting syndromes,
XX osteoporosis, inflammatory diseases, autoimmune diseases or
XX neurodegenerative diseases
XX
XX Disclosure: Page 244-247; 253pp; English.
XX
XX Inhibition of cytokine mediated immunotoxicity of cells can be
XX achieved by blocking free radical production or the accumulation of
XX free radicals in that cell. Treatment of insulin dependent diabetes
XX mellitus (IDDM) can be achieved by blocking nitric oxide (NO)
XX production in a pancreatic beta cell and by providing a composition
XX comprising an agent that reduces levels of fatty acids in the cells
XX and protects beta-cells of the subject against lipid-mediated cell
XX death. Cells can also be protected against nitric oxide mediated
XX cytotoxicity by introducing into the cell an antioxidant agent.
XX The methods can be used for protecting cells against immunotoxicity
XX mediated by, e.g. IL-1 beta, IL-1 alpha, gamma IFN, TNF alpha, TNF
XX beta, IL-8, IL-2, IL-6, IL-2, IL-3, IL-5, IL-7, IL-9, IL-14, IL-17,
XX granulocyte-macrophage colony stimulating factor or monocyte
XX chemoattractant protein-1. The methods can be used for the treatment
XX

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2142 TCCACCTGGGGGCTCTCAGCTCACCCGATGGGAGAGGGGATGAGTCACTGAGCGAG 2201
2041 TCCACTCTGGGGGCTCTCAGCTCACCCGATGGGAGAGGGGATGAGTCACTGAGCGAG 2100
2202 GAGAGGCGCTTCGCGAGCTGGGCGGTGCAAACTTCAAGGCGAGCTGTGAGAGCTTTGAT 2261
2101 GAGAGGCGCTTCGCGAGCTGGGCGGTGCAAACTTCAAGGCGAGCTGTGAGAGCTTTGAT 2160
2262 GTCCGAGGCAACAGCAGCATTTAGATCCCAAGCTCTACCTCCAAATGTGACCTGGGAG 2321
2161 GTCCGAGGCAACAGCAGCATTTAGATCCCAAGCTCTACCTCCAAATGTGACCTGGGAG 2220
2322 CGCAGCACTACAGGCTCTGAGAGCTCAGCGCTTGGAGAGCTTGAAGAAACCTCTGAC 2381
2221 CGCAGCACTACAGGCTCTGAGAGCTCAGCGCTTGGAGAGCTTGAAGAAACCTCTGAC 2280
2382 AGCATGATGCCAAGAACGCTGTTCACCATGAGGCTCAATCTCGGAGAACTTACAAGT 2441
2281 AGCATGATGCCAAGAACGCTGTTCACCATGAGGCTCAATCTCGGAGAACTTACAAGT 2340
2442 CGGACATCCAGCGCTGGCCCATCTGTGTGAGAACTCTCTGTGAGAGATGGCCAAAGGCTG 2501
2341 CGGACATCCAGCGCTGGCCCATCTGTGTGAGAACTCTCTGTGAGAGATGGCCAAAGGCTG 2400
2502 AACTACTGCGCGGGGAGACCTTGGGGTTTGCCAGGCAACAGCGCGCCCTGGTCCAA 2561
2401 AACTACTGCGCGGGGAGACCTTGGGGTTTGCCAGGCAACAGCGCGCCCTGGTCCAA 2460
2562 GGCATCTCGAGCAGAGTGTGATGGCCACACCCCAACAGACAGTGCCTGAGAGAC 2621
2461 GGCATCTCGAGCAGAGTGTGATGGCCACACCCCAACAGACAGTGCCTGAGAGAC 2520
2622 CTGATGAGAGTGGAGCTACTGGGTGATGAGAGAGGCTGCCCCCTGCTCACTGAC 2681
2521 CTGATGAGAGTGGAGCTACTGGGTGATGAGAGAGGCTGCCCCCTGCTCACTGAC 2580
2682 CAGGGCTCTACCTACTTCCCGGACATCACACACCCCAACAGAGCTGCTCTCAAAAG 2741
2581 CAGGGCTCTACCTACTTCTCGGACATCACACACCCCAACAGAGCTGCTCTCAAAAG 2640
2742 CTGGGCCAGGTGGCCACAGAGAGCTTGAAGACAGAGGCTGAGAGGCTTGGCCAGCC 2801
2641 CTGGGCCAGGTGGCCACAGAGAGCTTGAAGACAGAGGCTGAGAGGCTTGGCCAGCC 2700
2802 TCAGAGTACAGAGTGAAGTTCACACAGCCCAATTCCTGGAGAGTCTGAGAGAG 2861
2701 TCAGAGTACAGAGTGAAGTTCACACAGCCCAATTCCTGGAGAGTCTGAGAGAG 2760
2862 TTCCCGTCCCTGCGGGTGTGCTGGCTTCTGCTTTCCAGCTGCCATTCGAAAGCC 2921
2761 TTCCCGTCCCTGCGGGTGTGCTGGCTTCTGCTTTCCAGCTGCCATTCGAAAGCC 2820
2922 AGGTTCTACTCATAGCTCTCCCGGATACACAGCCCAAGAGTCCAGTCACTGTG 2981
2821 AGGTTCTACTCATAGCTCTCCCGGATACACAGCCCAAGAGTCCAGTCACTGTG 2880
2982 GCGGTGATCACTACAGCAGGAGATGGGAGGTCCTCGACACAGAGTGTGAGAG 3041
2881 GCGGTGATCACTACAGCAGCAGGAGATGGGAGGTCCTCGACACAGAGTGTGAGAG 2940
3042 ACATGGCTCAACAGAGCTTGAAGCCCAAGAGCAGTGCCTTGGCGGAATGAGAGC 3101
2941 ACATGGCTCAACAGAGCTTGAAGCCCAAGAGCAGTGCCTTGGCGGAATGAGAGC 3000
3102 GCGTTCCACCTCCCGAGAGATCCCTCCATCCTTGATCTCATCGGAGCTGAGACAGC 3161
3001 GCGTTCCACCTCCCGAGAGATCCCTCCATCCTTGATCTCATCGGAGCTGAGACAGC 3060
3162 ATGCTGCTTCCGAGAGTGTGAGAGACAGGCTCTCATGACTCCAGCACAAGAGAGTG 3221
3061 ATGCTGCTTCCGAGAGTGTGAGAGACAGGCTCTCATGACTCCAGCACAAGAGAGTG 3120
3222 CGGGAGGCGCATGACTTGTGTTGGGGCGCGCCCAAGATGAGACACATCTAC 3281

3121 CGGGAGGCGCATGACTTGTGTTGGTGGCGGCCCAAGATGAGACACATCTAC 3180
3282 CAGGAGGAGATGCTGGAGATGAGGCGCCAGAGGGGTGTGATCGGTGACACAGCTAT 3341
3181 CAGGAGGAGATGCTGGAGATGAGGCGCCAGAGGGGTGTGATCGGTGACACAGCTAT 3240
3342 TCCCGCTGCTGGCAAGCCCAAGGTCATGTTTCAAGACATCTCGGGGAGAGTGGC 3401
341 TCCCGCTGCTGGCAAGCCCAAGGTCATGTTTCAAGACATCTCGGGGAGAGTGGC 3300
3402 AGCAGTGTCTCGGTGTGCTTCCACAGAGCCAGGCACTTATGTTTGGGGATGTG 3461
3301 AGCAGTGTCTCGGTGTGCTTCCACAGAGCCAGGCACTTATGTTTGGGGATGTG 3360
3462 CGCATGCGCGGGAGCGGGCCACACCCCTGAGACAGTGGTGGCTGCAAGCTGAATG 3521
3361 CGCATGCGCGGGAGCGGGCCACACCCCTGAGACAGTGGTGGCTGCAAGCTGAATG 3420
3522 AATGAGGAGCAGGTCGAGACTATTTCTTTCAGCTCAGAGCCAGAGGCGTATCAGAA 3581
3421 AATGAGGAGCAGGTCGAGACTATTTCTTTCAGCTCAGAGCCAGAGGCGTATCAGAA 3480
3582 GATATCTTGGTGTGATTTCTTCTTACAGAGCCAAAGAGACAGGTTGGCGGTGACGCC 3641
3481 GATATCTTGGTGTGATTTCTTCTTACAGAGCCAAAGAGACAGGTTGGCGGTGACGCC 3540
3642 AGCAGCTGAGAGATGTCAGGCTCTGAGAGGCTTACAGAGAGGTTTAACTGGCGGACA 3701
3541 AGCAGCTGAGAGATGTCAGGCTCTGAGAGGCTTACAGAGAGGTTTAACTGGCGGACA 3600
3702 GAATCTAAGATGAGGAGCAGCTGCTGATTTATCTGAGGTACAGAGGCTTGGGAGATGAG 3761
3601 GAATCTAAGATGAGGAGCAGCTGCTGATTTATCTGAGGTACAGAGGCTTGGGAGATGAG 3660
3762 GAAAGTATATCCCGGAGCTGAGGCTTATTTCTTCAAGGTTGCTCCCATCAAGCCT 3821
3661 GAAAGTATATCCCGGAGCTGAGGCTTATTTCTTCAAGGTTGCTCCCATCAAGCCT 3720
3822 TTACTTGACCTCTTAACAGATAGACACCTGATGATGAGAGGCTTCTTCAAACTGG 3881
3721 TTACTTGACCTCTTAACAGATAGTACACCTGATGATGAGAGGCTTCTTCAAACTGG 3780
3882 GGCCTCCCTGTGCTCTTGGAGACAAAATCTTAATATCCAGGCTGGGAGTGGTGAAG 3941
3781 GGCCTCCCTGTGCTCTTGGAGACAAAATCTTAATATCCAGGCTGGGAGTGGTGAAG 3840
3942 ATGGAACCTGCTGAGTGAACACTTCAAGTGAAGACACAGAGGCTGATCGACAC 4001
3841 ATGGAACCTGCTGAGTGAACACTTCAAGTGAAGACACAGAGGCTGATCGACAC 3900
4002 TGTGATTTAACTGCTGTGTAACATTTATGCTCTGTATTTAAAAAACTAAAC 4061
3901 TGTGATTTAACTGCTGTGTAACATTTATGCTCTGTATTTAAAAAACTAAAC 3960
4062 CAGTCTGTTCCCATATGCGACACTTGGGTCTTCCCTGATGATCTTGAAGATATTTA 4121
3961 CAGTCTGTTCCCATATGCGACACTTGGGTCTTCCCTGATGATCTTGAAGATATTTA 4020
4122 CATGAATGATTTTACTTAATC 4145
4021 CATGAATGATTTTACTTAATC 4044

RESULT 14
AAC67036
ID AAC67036 standard; DNA; 4150 BP.
XX AAC67036;
AC
XX
DT 03-APR-2001 (first entry)
XX
DE Human inducible nitric oxide synthase coding sequence #2.

Db 509 GCGGATGACTTCCAGACACACTTCACCATAAGGCCAAGGATTTAACTTGCAGGT 56

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Db 1649 TCACCCCGCTGTTTACACGAGATGCTGAACCTACCTCTCCCTTTCTACACTATTC 1708
Qy 1681 AGTAGAGGCTTGAAACCACATGCTGGCAGACGAGACGAGACCCCAAGAGAG 1740
Db 1709 AGGTAGAGGCTTGAAACCACATGCTGGCAGACGAGACCCCAAGAGAG 1768
Qy 1741 AGATCCCATTAAGTCTTGCTGCAAGGCTGCTCTTGGCTGTATGCTGTATGCGCAGA 1800
Db 1769 AGATTCCATTAAGTCTTGCTGCAAGGCTGCTCTTGGCTGTATGCTGTATGCGCAGA 1828
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Db 1829 CAATGGCGTCCGAGTCAAGTCAACATCTCTTTGGCTGTATGCTGTATGCGCAGA 1888
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Db 1889 CGCTGGCTGGAGACTGGGGGCTTATTCAGCTGCTTAAACCCCAAGTGTCTGCA 1948
Qy 1921 TGGATTAAGTACAGCTGAGCTGCTGGAGAGAAAGGCTGCTGTGGTGTGACCAATA 1980
Db 1949 TGGATTAAGTACAGCTGAGCTGCTGGAGAGAAAGGCTGCTGTGGTGTGACCAATA 2008
Qy 1981 CGTTTGGCAATGAGAGCTGCTGCGCAATGAGAGAACTAGAGAAATGCTTTTCATGC 2040
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Qy 2221 GGGCGGTGCAAACTTTCAGAGCAGCTGTGAGACGTTTGATGTCCGAGGCAACAGCA 2280
Db 2249 GGGCGGTGCAAACTTTCAGAGCAGCTGTGAGACGTTTGATGTCCGAGGCAACAGCA 2308
Qy 2281 TTCAGATCCCAAGCTCTACACCTCAATGTGACCTGGGAGCCCGACACTACAGGCTCG 2340
Db 2309 TTCAGATCCCAAGCTCTACACCTCAATGTGACCTGGGAGCCCGACACTACAGGCTCG 2368
Qy 2341 TGCAGAGCTCAAGGCTTGGACCTCAAGAAAGCCCTCAGAGCATGTGATGCAAGAGG 2400
Db 2369 TGCAGAGCTCAAGGCTTGGACCTCAAGAAAGCCCTCAGAGCATGTGATGCAAGAGG 2428
Qy 2401 TGTTCACATGAGGCTCAAAATCTCGGAGAAATCTACAAAGTCCGACATCCAGCCGTGCA 2460
Db 2429 TGTTCACATGAGGCTCAAAATCTCGGAGAAATCTACAAAGTCCGACATCCAGCCGTGCA 2488
Qy 2461 CCATCCTGTGGAATCTCTCTGTAGAGATGGCCAAAGGCTGAACTACTGCGGGGAGC 2520
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Qy 2641 ACTGGCTGATGACAGAGAGGCTGCGCCCTGCTCAGTACAGGAGCCCTCAGCTACTCTCC 2700
Db 2669 ACTGGCTGATGACAGAGAGGCTGCGCCCTGCTCAGTACAGGAGCCCTCAGCTACTCTCC 2728
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Qy 2761 AAGAGCTGAGAGACAGAGGCTGGAGGCTGTGCGACGCTCCAGAGTACAGAGTGGAG 2820
Db 2789 AAGAGCTGAGAGACAGAGGCTGGAGGCTGTGCGACGCTCCAGAGTACAGAGTGGAG 2848
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Db 2849 AGTTACCAACAGCCCAATTCCTGAGAGTGTCTAGAGAGTGTCCGTCCTGCGGGTGT 2908
Qy 2881 CTGCTGGCTTCTGCTTTCCTGACAGCTCCCATTTCTGAAGCCCAAGTTCATCTCAGCT 2940
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Db 2969 CCTCCGGGATTCACAGCCCAAGAGATCCACTGACTGTGACCGGTGACCTACACA 3028
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Db 3089 AGCCCAAGACCCAGTGCCTGCTTGTGGGAAATGCAAGGCTTCCACCTCCCGAGG 3148
Qy 3121 ATCCCTCCATCCCTGATCTCATGCGGCTTGGCAGAGCATGCTGCCCTTCCGAGTT 3180
Db 3149 ATCCCTCCATCCCTGATCTCATGCGGCTTGGCAGAGCATGCTGCCCTTCCGAGTT 3208
Qy 3181 TCTGGCAGACAGGCTTCATGACTCCAGCACAAGGAGTGGGGAGGCGCCATGACCT 3240
Db 3209 TCTGGCAGACAGGCTTCATGACTCCAGCACAAGGAGTGGGGAGGCGCCATGACCT 3268
Qy 3241 TGGGTTTGGGCTCGCGCGCCAGATGAGAGCACATCTACAGAGAGATGCTGGAGA 3300
Db 3269 TGGGTTTGGGCTCGCGCGCCAGATGAGAGCACATCTACAGAGAGATGCTGGAGA 3328
Qy 3301 TGGCCCAAGAGGGGCTGTCATGCGGTGCACACAGCTTATTCGCGCTGCGCAAGC 3360
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Qy 3361 CCAAGCTCTATGTTGAGAGATCTGCGAGAGAGTGGCCAGAGGCTGCGGTGTC 3420
Db 3389 CCAAGCTCTATGTTGAGAGATCTGCGAGAGAGTGGCCAGAGGCTGCGGTGTC 3448
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Qy 3541 ACTATTTCTTTCAGCTCAAGAGCAGAGAGGCTATACAGAGATATCTTGGGTGTAT 3600
Db 3569 ACTATTTCTTTCAGCTCAAGAGCAGAGAGGCTATACAGAGATATCTTGGGTGTAT 3628
Qy 3601 TTTCTTACAGAGGAGAGAGAGGCTGAGGTGCGAGCCAGCCAGCTGAGATGTGAG 3660
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Qy 3661 CGCTCTAGAGGCTTACAGAGAGGCTTAAAGCTGCGGACAGAGAACTTAAGATGAGAGCA 3720
Db 3689 CGCTCTAGAGGCTTACAGAGAGGCTTAAAGCTGCGGACAGAGAACTTAAGATGAGAGCA 3748
Qy 3721 GCTGCTATTAATGCTGAGGTACAGAGGCTGGGAGATGAGAGAAATGATATCCCGAGC 3780
Db 3749 GCTGCTATTAATGCTGAGGTACAGAGGCTGGGAGATGAGAGAAATGATATCCCGAGC 3808
Qy 3781 CTCAAGTCTTATTTCTCAACGTTGCTCCCATCAAGCCCTTACTGACCTCTTAACA 3840
Db 3809 CTCAAGTCTTATTTCTCAACGTTGCTCCCATCAAGCCCTTACTGACCTCTTAACA 3868
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QY 3841 GTAGACCCCTGGATTGATCGAGAGCCCTCTCTCAAACTGGGGCCCTGTCCTTGG 3900
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RESULT 15

AAC67035
ID AAC67035 standard; DNA; 3946 bp.

AC AAC67035;

DT 03-APR-2001 (first entry)

XX Human inducible nitric oxide synthase coding sequence #1.

KW Human: influenza virus; antisense; inducible nitric oxide synthase;

OS Homo sapiens.

PN MO200078946-A2.

PD 28-DEC-2000.

PF 19-JUN-2000; 2000MO-US16810.

PR 17-JUN-1999; 99US-0139479.

PA (EVIR-) EASTERN VIRGINIA MEDICAL SCHOOL.

PI Keller ET, Gravenstein S, Hall DM;

DR WPI; 2001-102720/11.

XX Treating viral influenza with antisense oligonucleotides that hybridize

PT with inducible nitric oxide synthase mRNA and inhibit synthesis of the

PS enzyme, reducing the production of nitric oxide in lungs

CC Disclosure; Fig 1: 21pp; English.

CC The present invention provides a novel method of treating influenza virus

CC infection by administering an antisense oligonucleotide directed at the

CC human inducible nitric oxide synthase (iNOS) mRNA. This is useful in

CC preventing the symptoms of influenza infection.

XX Sequence 3946 bp; 918 A; 1149 C; 1073 G; 806 T; 0 other;

QY Query Match 80.3%; Score 3327; DB 22; Length 3946;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 3927; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

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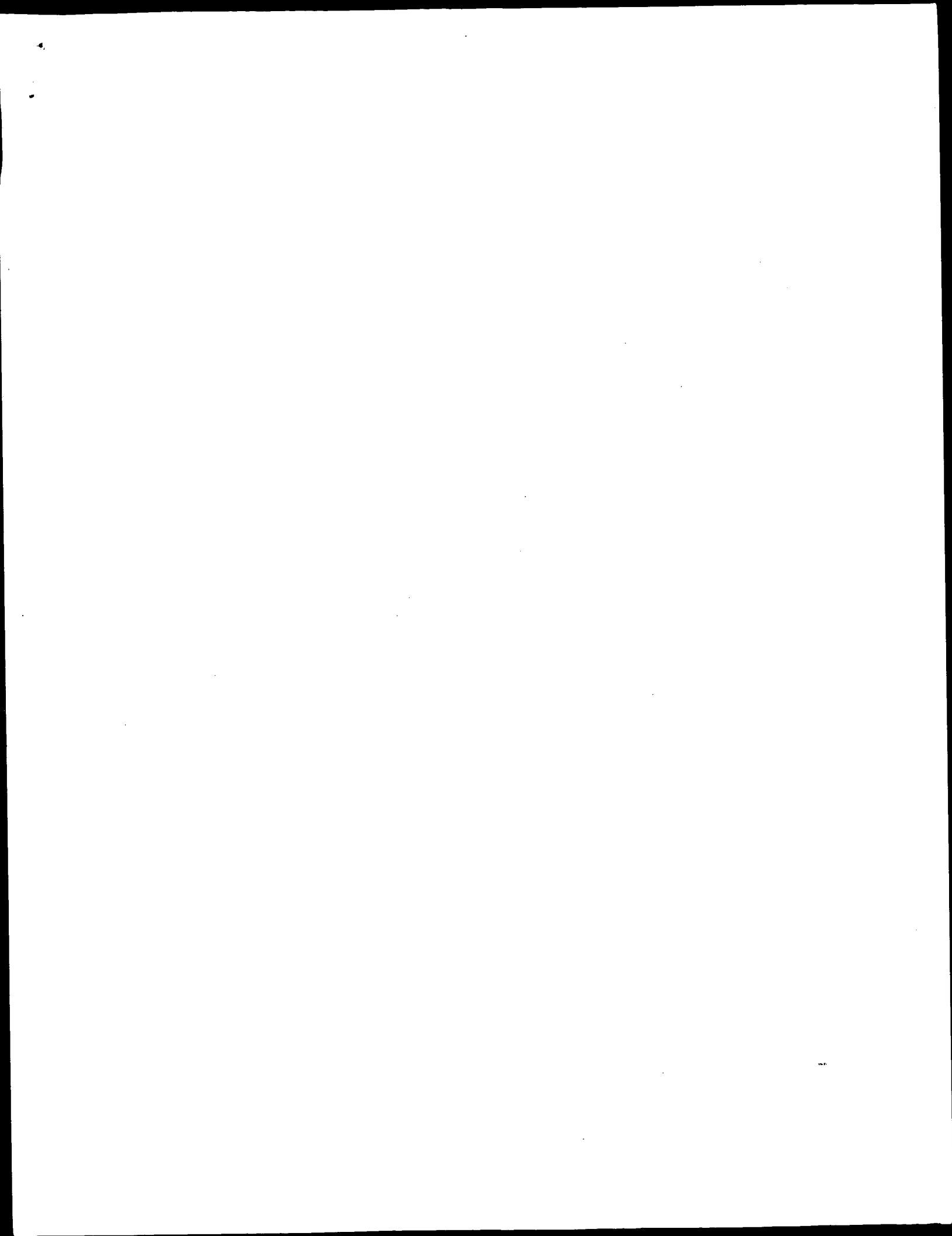
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Db 541 CTGACGGGAGATGACCTATCTTGGCCACCAAGAGCGCTGGCAATGCCCCAGCTGC 600
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Db 1621 ATCTCTTTGGCAG 1680
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QY 1947 GAGGAG 2006
Db 1741 GAGGAG 1800
QY 2007 AATGGAG 2066
Db 1801 AATGGAG 1860
QY 2067 TACGCTGTGTTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 2126
Db 1861 TACGCTGTGTTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 1920
QY 2127 ATTGATCAG 2186
Db 1921 ATTGATCAG 1980
QY 2187 GAGCTCAGTGGGAG 2246
Db 1981 GAGCTCAGTGGGAG 2040
QY 2247 TGTGAG 2306
Db 2041 TGTGAG 2100
QY 2307 AATGTGAG 2366
Db 2101 AATGTGAG 2160
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Db 2161 AGCAAG 2220
QY 2427 CAGAAATCTAAG 2486
Db 2221 CAGAAATCTAAG 2280

QY 2487 GATGGCCAAAGGCTGAACTACCTGCGGGGAGAGACCTTGGGGTTGGCCAGGCAACAG 2546
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QY 3627 GTGGGGTGCAGCCAGCGCTGTGAGATGTAGCGCTGTGAGGGCTTACAGAGGGGT 3686
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Db 3421 GTGGGGTGCAGCCAGCGCTGTGAGATGTAGCGCTGTGAGGGCTTACAGAGGGGT 3480
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Search completed: March 14, 2003, 13:36:11
Job time : 1119 secs



APPLICANT: Chenault, Ruth A

PRIOR APPLICATION NUMBER: PCT/US01/00666

;; PRIOR FILING DATE: 2001-01-30

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1  PRIOR APPLICATION NUMBER: PCT/US01/00668
2  PRIOR FILING DATE: 2001-01-30
3  PRIOR APPLICATION NUMBER: PCT/US01/00663
4  PRIOR FILING DATE: 2001-01-30
5  PRIOR APPLICATION NUMBER: PCT/US01/00662
6  PRIOR FILING DATE: 2001-01-30
7  PRIOR APPLICATION NUMBER: PCT/US01/00661
8  PRIOR FILING DATE: 2001-01-30
9  PRIOR APPLICATION NUMBER: PCT/US01/00670
10 PRIOR FILING DATE: 2001-01-30
11 PRIOR APPLICATION NUMBER: US 60/234,667
12 PRIOR FILING DATE: 2000-09-21
13 PRIOR APPLICATION NUMBER: US 09/608,408
14 PRIOR FILING DATE: 2000-06-30
15 PRIOR APPLICATION NUMBER: US 09/774,203
16 PRIOR FILING DATE: 2001-01-29
17 NUMBER OF SEQ ID NOS: 49117
18 SOFTWARE: Annonmax Sequence Listing Engine vers. 1.1
19 SEQ ID NO 10947
20 LENGTH: 479
21 TYPE: DNA
22 ORGANISM: Homo sapiens
23 FEATURE:
24 OTHER INFORMATION: MAP TO AC005697.1
25 OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.84
26 OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.92
27 OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.99
28 OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.1
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30 OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.95
31 US-09-864-761-10947

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query Match      4.4%; Score 184; DB 10; Length 479;
Best Local Similarity 100.0%; Pred. No. 1e-84;
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0

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QY	253	ATGCATATGAATGGGGAAAAAACATCATTCAACAACATGTGGAGAAAAGCCCCTGTGCCACCT	312
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Db	299	CCAG 296	

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RESULT 3
US-09-998-598-1881/c
: Sequence 1881, Application US/09998598
: Patent No. US20020150922A1
: GENERAL INFORMATION:
: APPLICANT: Stolk, John A.
: APPLICANT: Xu, Jiangchun
: APPLICANT: Chenaault, Ruth A.
: APPLICANT: Meagher, Madelein Joy
: TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
: TITLE OF INVENTION: DIAGNOSTICS OF COLON CANCER
: FILE REFERENCE: 210121.561
: CURRENT APPLICATION NUMBER: US/09/998,598
: CURRENT FILING DATE: 2001-11-16
: NUMBER OF SEQ ID NOS: 2606
: SOFTWARE: Corixa Invention Disclosure Database
: SEQ ID NO 1881
: LENGTH: 174
: TYPE: DNA
: ORGANISM: Homo sapiens

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US-09-998-598-1881

Query Match	4.2%	Score 174;	DB 10;	Length 174;
Best Local Similarity	100.0%;	Pred. No. 1.4e-79;		
Matches 174;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

QY	2755	CCAGAGAAGAGCCGTGAGAGACACAGAGGCTGGAGGCCCTGTGGCCAGGCCCTAGAGGTACAGCA	2814
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QY	2815	AGTGAAGATTACCAACACAGGCCACATCTCTGGAGGTCTAGAGAGATCTCCGTCCTCTGC	2874
Db	114	AGTGAAGATTACCAACACAGGCCACATCTCTGGAGGTGCTAAGAGAGATTCCGTCCTCTGC	55
QY	2875	GGGTGTCTGCTGGCTTCTCTCTTCCACAGTCCCATCTGTGAAGCCCAAGTTCT	2928
Db	54	GGGTGTCTGCTGGCTTCTCTCTTCCACAGTCCCATCTGTGAAGCCCAAGTTCT	1

RESULT 4

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: Sequence 2256, Application US/09864761
: Patent No. US20020048763A1
: GENERAL INFORMATION:
: APPLICANT: Penn, Sharron G.
: APPLICANT: Rank, David R.
: APPLICANT: Hanzel, David K.
: APPLICANT: Chen, Wensheng
: TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
: TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
: FILE REFERENCE: Aecomica-X-1
: CURRENT APPLICATION NUMBER: US/09/864,761
: CURRENT FILING DATE: 2001-05-23
: PRIOR APPLICATION NUMBER: US 60/180,312
: PRIOR FILING DATE: 2000-02-04
: PRIOR APPLICATION NUMBER: US 60/207,456
: PRIOR FILING DATE: 2000-05-26
: PRIOR APPLICATION NUMBER: US 09/632,366
: PRIOR FILING DATE: 2000-08-03
: PRIOR APPLICATION NUMBER: GB 24263.6
: PRIOR FILING DATE: 2000-10-04
: PRIOR APPLICATION NUMBER: US 60/236,359
: PRIOR FILING DATE: 2000-09-27
: PRIOR APPLICATION NUMBER: PCT/US01/00666
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00667
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00664
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00669
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00665
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00668
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00663
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00662
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00661
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: PCT/US01/00670
: PRIOR FILING DATE: 2001-01-30
: PRIOR APPLICATION NUMBER: US 60/234,687
: PRIOR FILING DATE: 2000-09-21
: PRIOR APPLICATION NUMBER: US 09/608,408
: PRIOR FILING DATE: 2000-06-30
: PRIOR APPLICATION NUMBER: US 09/774,203
: PRIOR FILING DATE: 2001-01-29
: NUMBER OF SEQ ID NOS: 49117
: SOFTWARE: Anomax Sequence Listing Engine vers. 1.1
: SEQ ID NO 22316
: LENGTH: 250

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; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AC005697.1
; OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 4.9
; OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 4.6
; OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 4.5
; OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 4.2
; OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 4.3
; OTHER INFORMATION: EXPRESSED IN HEPA, SIGNAL = 3.7
; OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 4.2
; OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 4.6
; OTHER INFORMATION: NT HIT: X85764.1, EVALUATE 1.00e-127
; OTHER INFORMATION: SWISSPROT HIT: O62699, EVALUATE 2.00e-26
; US-09-864-761-22316

Query Match
Best Local Similarity 100.0%; Score 165; DB 10; Length 250;
Matches 165; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 734 AGAACCCTACCACTGACGGAGATGAGCTCTTCCGCCACCAAGAGCGCTGGCGCAA 793
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QY 794 TGCCCCACGCTGATGGAGAGATCCAGTGTCCCACTGAGGT 838
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Db 130 TGCCCCACGCTGATGGAGAGATCCAGTGTCCCACTGAGGT 86

RESULT 5
; US-09-864-761-5546/c
; Sequence 5546, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharon G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; APPLICANT: Chen, Wensheng
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
; FILE REFERENCE: Aeomica-X-1
; CURRENT APPLICATION NUMBER: US/09/864,761
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/180,312
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: US 60/207,456
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/632,366
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; PRIOR APPLICATION NUMBER: PCT/US01/00665
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00668
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; PRIOR APPLICATION NUMBER: PCT/US01/00662
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; PRIOR APPLICATION NUMBER: PCT/US01/00661
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00670
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: US 60/234,687
; PRIOR FILING DATE: 2000-09-21
; PRIOR APPLICATION NUMBER: US 09/608,408
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: US 09/774,203
; PRIOR FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 49117
; SOFTWARE: Annotmax Sequence Listing Engine vers. 1.1
; SEQ ID NO 5546
; LENGTH: 483
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AC005697.1
; OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 4.9
; OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 4.6
; OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 4.5
; OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 4.2
; OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 4.3
; OTHER INFORMATION: EXPRESSED IN HEPA, SIGNAL = 3.7
; OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 4.2
; OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 4.6
; US-09-864-761-5546

Query Match
Best Local Similarity 100.0%; Score 165; DB 10; Length 483;
Matches 165; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 674 GCGAAATATAGAGACATCTGGCCAGGCGGTGAGCGGTACCAAGAGATGAAACAC 733
    |||||||
Db 479 GCGAAATATAGAGACATCTGGCCAGGCGGTGAGCGGTACCAAGAGATGAAACAC 420

QY 734 AGAACCCTACCACTGACGGAGATGAGCTCTTCCGCCACCAAGAGCGCTGGCGCAA 793
    |||||||
Db 419 AGAACCCTACCACTGACGGAGATGAGCTCTTCCGCCACCAAGAGCGCTGGCGCAA 360

QY 794 TGCCCCACGCTGATGGAGAGATCCAGTGTCCCACTGAGGT 838
    |||||||
Db 359 TGCCCCACGCTGATGGAGAGATCCAGTGTCCCACTGAGGT 315

RESULT 6
; US-09-864-761-27584/c
; Sequence 27584, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharon G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; APPLICANT: Chen, Wensheng
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
; FILE REFERENCE: Aeomica-X-1
; CURRENT APPLICATION NUMBER: US/09/864,761
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/180,312
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: US 60/207,456
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/632,366
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: GB 24263.6
; PRIOR FILING DATE: 2000-10-04
; PRIOR APPLICATION NUMBER: US 60/236,359
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: PCT/US01/00666
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00667
; PRIOR FILING DATE: 2001-01-30
```

PRIOR APPLICATION NUMBER: PCT/US01/00664
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00669
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00665
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00668
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00663
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00662
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00670
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 27584
LENGTH: 92
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AC005697.1
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.84
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.92
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.99
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.1
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.79
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.95
OTHER INFORMATION: EST_HUMAN HIT: BE999973.1, EVALUO 2.00e-23
OTHER INFORMATION: SWISSPROT HIT: P35228, EVALUO 3.00e-13
OTHER INFORMATION: NT HIT: AB022318.1, EVALUO 5.00e-45
US-09-864-761-27584

Query Match 2.2%; Score 92; DB 10; Length 92;
Best Local Similarity 100.0%; Pred. No. 3.9e-37;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 207 ATGGCTGCTTGAATTTCTGTCAGACCAATTCACAGATGCAATGAATGG 266
|||||
DB 92 ATGGCTGCTTGAATTTCTGTCAGACCAATTCACAGATGCAATGAATGG 33
QY 267 GAAAAAGACATCAACACATGTGGAAGC 298
|||||
DB 32 GAAAAAGACATCAACACATGTGGAAGC 1

Search completed: March 14, 2003, 16:15:53
Job time : 275 secs

www.bio.lnl.gov/bdrip/image/image.html
 Insert Length: 1740 Std Error: 0.00
 Seq primer: -40UP from Gibco
 High quality sequence stop: 471.
 Location/Qualifiers

FEATURES

Source

1.721
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone="IMAGE:2392347"
 /clone_1ib="NCI CGAP Col6"
 /tissue_type="colon tumor, RER+"
 /lab_host="DH10B"
 /note="Organ: Colon; Vector: p17T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; Plasmid DNA from the normalized library NCI CGAP Col6 was prepared, and ss circles were made in vitro. Following HAP hybridization reaction, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from a pool of 5,000 clones made from the same library (cloneids 1057416-1061255, and 1144584-1145351). Subtraction by Bento Soares and M. Fatima Bonaldo."
 BASE COUNT 179 a 186 c 183 g 172 t 1 others
 ORIGIN

Query Match 12.4%; Score 513; DB 9; Length 721;
 Best Local Similarity 99.7%; Pred. No. 1.2e-242;
 Matches 613; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 3531 CAGGTGAGGACATATTTCTTTCAGCTCAAGAGCGGCTATCAGCAAGATATCTTC 3590
 DB 615 CAGGTGAGGACATATTTCTTTCAGCTCAAGAGCGGCTATCAGCAAGATATCTTC 556
 QY 3591 GGTCTGATATTTCTTTCAGAGGCGAAGAAGACAGGTGGTGCAGCCACAGCCTG 3650
 DB 555 GGTCTGATATTTCTTTCAGAGGCGAAGAAGACAGGTGGTGCAGCCACAGCCTG 496
 QY 3651 GAGATGTCAGGCTCTGAGGGCTACAGAGAGGGTTAAAGCTCCGGCACAGACTTAAG 3710
 DB 495 GAGATGTCAGGCTCTGAGGGCTACAGAGAGGGTTAAAGCTCCGGCACAGACTTAAG 436
 QY 3711 GATGAGGCGAGCTCTGATATCTGAGTCAAGAGGCTGGGAGATGAGGAAGTGTAT 3770
 DB 435 GATGAGGCGAGCTCTGATATCTGAGTCAAGAGGCTGGGAGATGAGGAAGTGTAT 376
 QY 3771 ATCCCCAGGCTCAAGTCTATTTCTCAAGCTTGCTCCCATCAAGCCCTTACTTGAC 3830
 DB 375 ATCCCCAGGCTCAAGTCTATTTCTCAAGCTTGCTCCCATCAAGCCCTTACTTGAC 316
 QY 3831 CTCTTAACAAGTAGACCCCTGATGATGGAGCTCTCTCAACCTGGGCTCTCCCT 3890
 DB 315 CTCTTAACAAGTAGACCCCTGATGATGGAGCTCTCTCAACCTGGGCTCTCCCT 256
 QY 3891 GGTCCTTGGAGCAAAATCTTAAATGCCAGGCTGGGCTGGGAGATGGAAGT 3950
 DB 255 GGTCCTTGGAGCAAAATCTTAAATGCCAGGCTGGGCTGGGAGATGGAAGT 196
 QY 3951 GCTGCTGAGTGCACACCTCAAGTAGACACAGAGGTGCTATGCAACCACTGTGATT 4010
 DB 195 GCTGCTGAGTGCACACCTCAAGTAGACACAGAGGTGCTATGCAACCACTGTGATT 136
 QY 4011 AACTGCTTGTGACATTTATTTATGCTGTGATTTAAAAAACCTAACCCAGTCTGT 4070
 DB 135 AACTGCTTGTGACATTTATTTATGCTGTGATTTAAAAAACCTAACCCAGTCTGT 76
 QY 4071 CCCATGGGCACTGGTCTTCCCTGATGATTTCTTGATGAGAGATATTNAGTAATG 4130
 DB 75 CCCATGGGCACTGGTCTTCCCTGATGATTTCTTGATGAGAGATATTNAGTAATG 16
 QY 4131 CATTTACTTTAATC 4145
 DB 15 CATTTACTTTAATC 1

RESULT 2
 AI953734/c 470 bp mRNA linear EST 06-sep-1999
 LOCUS w474902.x1 NCI CGAP GC6 Homo sapiens cDNA clone IMAGE:2474450 3'
 DEFINITION similar to gp:K73029 NITRIC OXIDE SYNTHASE, INDUCIBLE (HUMAN);,
 mRNA sequence.

ACCESSION AI953734
 VERSION AI953734
 KEYWORDS AI953734.1 GI:5746044
 SOURCE EST
 ORGANISM human.

REFERENCE 1 (bases 1 to 470)
 AUTHORS NCI CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
 TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 Tumor Gene Index
 JOURNAL Unpublished (1997)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-remail.nih.gov
 Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael
 R. Emmert-Buck, M.D., Ph.D.
 cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima
 Bonaldo, Ph.D.

cDNA Library Arrayed by: Greg Lennon, Ph.D.
 DNA Sequencing by: Washington University Genome Sequencing Center
 Clone distribution: NCI CGAP clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
 www.bio.lnl.gov/bdrip/image/image.html
 Seq primer: -40UP from Gibco.
 Location/Qualifiers

FEATURES

Source

1.470
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone="IMAGE:2474450"
 /clone_1ib="NCI CGAP GC6"
 /tissue_type="pooled germ cell tumors"
 /lab_host="DH10B"
 /note="Vector: p17T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; Plasmid DNA from the normalized library NCI CGAP GC6 was prepared, and ss circles were made in vitro. Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from a pool of 5,000 clones made from the same library (cloneids 1257096-1258631, 1469064-1470983, and 1475592-1476743). Subtraction by Bento Soares and M. Fatima Bonaldo."
 BASE COUNT 128 a 107 c 121 g 114 t
 ORIGIN

Query Match 10.1%; Score 417; DB 9; Length 470;
 Best Local Similarity 99.8%; Pred. No. 4.5e-195;
 Matches 467; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3678 GGAGGGGTTAAAGCTGCGGACAGAACTTAAGATGAGGACCTGCTGATATCTGAG 3737
 DB 470 GGAGGGGTTAAAGCTGCGGACAGAACTTAAGATGAGGACCTGCTGATATCTGAG 411
 QY 3738 GTCAAGAGGCGCTGGGGAATGAGGAAGTATCCCCAGCCTCAAGTCTTATTCCT 3797
 DB 410 GTCAAGAGGCGCTGGGGAATGAGGAAGTATCCCCAGCCTCAAGTCTTATTCCT 351
 QY 3798 CAAGTGTGCTCCCTCAAGGCTTACTTACCTCAAGTAGACACCTGGATTGA 3857
 DB 350 CAAGTGTGCTCCCTCAAGGCTTACTTACCTCAAGTAGACACCTGGATTGA 291
 QY 3858 TCGAGCCTCTCTCAAACTGGGGCTCCCTGCTGGAGACAAATCTTAATG 3917
 DB 290 TCGAGCCTCTCTCAAACTGGGGCTCCCTGCTGGAGACAAATCTTAATG 231
 QY 3918 CCAGGCTGCGGAGTGGGTGAAGATGGAACCTGCTGAGTGACACCACTTCAAGTGAC 3977
 DB 230 CCAGGCTGCGGAGTGGGTGAAGATGGAACCTGCTGAGTGACACCACTTCAAGTGAC 171

of 5,000 clones made from the same library (clonoids
1257096-1258631, 1469064-1470983, and 1475592-1476743).
Subtraction by Bento Soares and M. Fatima Bonaldo.

BASE COUNT 124 a 100 c 120 g 111 t

Query Match 9.6%; Score 396; DB 9; Length 455;
Best Local Similarity 99.8%; Pred. No. 1.2e-184;
Matches 446; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3693 GCCGACACAGACTTAAGATGAGGAGCCAGCTGCAATTAATGAGGTACAGGGCCTGG 3752
DB 455 GCCGACACAGACTTAAGATGAGGAGCCAGCTGCAATTAATGAGGTACAGGGCCTGG 396
QY 3753 GAATGAGGAGAAAGTAT 3812
DB 395 GAGATGAGGAGAAAGTAT 336
QY 3813 TCAAGCCTTACTTACCTGCTTACCAAGTACAGCCCTGATGATGAGAGCCTCTCTC 3872
DB 335 TCAAGCCTTACTTACCTGCTTACCAAGTACAGCCCTGATGATGAGAGCCTCTCTC 276
QY 3873 TCAAACTGGGGCCTCCCTGCTTGGAGACAAATCTTAAATGCGAGCCTGGCGAGT 3932
DB 275 TCAAACTGGGGCCTCCCTGCTTGGAGACAAATCTTAAATGCGAGCCTGGCGAGT 216
QY 3933 GGGTGAAGATGAGACTGCTGCTGAGTGCACACCTTCAAGTACACAGAGAGTGTCTA 3992
DB 215 GGGTGAAGATGAGACTGCTGCTGAGTGCACACCTTCAAGTACACAGAGAGTGTCTA 156
QY 3993 TCGCACCACCTGTATTTAACTGCTTGTACAGTATTTATGCTGTATTTAAAAA 4052
DB 155 TCGCACCACCTGTATTTAACTGCTTGTACAGTATTTATGCTGTATTTAAAAA 96
QY 4053 ACTAACCCAGAGTCTGTCTCCCATGGCCACTTGGCTTCCCTGTATGATTCCTTATAG 4112
DB 95 ACTAACCCAGAGTCTGTCTCCCATGGCCACTTGGCTTCCCTGTATGATTCCTTATAG 36
QY 4113 AGATATTTACATGATTTGATTTTACT 4139
DB 35 AGATATTTACATGATTTGATTTTACT 9

RESULT 5
A1797675 445 bp mRNA linear EST 18-DEC-1999
LOCUS A1797675
DEFINITION IMAGE:2348360.3', similar to gb.X73029 NITRIC OXIDE SYNTHASE,
INDUCIBLE (HUMAN);, mRNA sequence.

ACCESSION A1797675
VERSION A1797675
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens

REFERENCE 1 (bases 1 to 445)
AUTHORS NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index

JOURNAL Unpublished (1997)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@nhi.nih.gov

This clone is available royalty-free through LNL; contact the
IMAGE Consortium (info@image.lnl.gov) for further information.
Insert length: 514 Std Error: 0.00
Seq primer: -400P from Gibco.

FEATURES
source 1.445
Location/Qualifiers

/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:2348360"
/clone_1ib="Soares_NFL_T_GBC_S1"

/lab_host="DH10B"
/note="Organ: pooled; Vector: pUT73D-Pac (Pharmacia) with
a modified polylinker; Site.1: Not I; Site.2: Eco RI;
Equal amounts of plasmid DNA from three normalized
libraries (fetal lung NBH19W, testis NHT, and B-cell
NCI-CGAP-GCB1) were mixed, and ss circles were made in
vitro. Following HAP purification, this DNA was used as
tracer in a subtractive hybridization reaction. The driver
was PCR-amplified cDNAs from pools of 5,000 clones made
from the same 3 libraries. The pools consisted of
I.M.A.G.E. clones 297480-302087, 682632-687239,
726408-728711, and 729096-731399. Subtraction by Bento
Soares and M. Fatima Bonaldo.

BASE COUNT 125 a 96 c 116 g 108 t

Query Match 9.5%; Score 392; DB 9; Length 445;
Best Local Similarity 99.8%; Pred. No. 1.1e-182;
Matches 442; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3703 AACTTAAGATGAGAGCCAGCTCTGATATATCTGAGTACAGGAGCTGGGAGATGAGG 3762
DB 445 AACTTAAGATGAGAGCCAGCTCTGATATATCTGAGTACAGGAGCTGGGAGATGAGG 386
QY 3763 AAGTAT 3822
DB 385 AAGTAT 326
QY 3823 TACTTGACCTCTTAAAGTATGACACCTGATGATGAGAGCTGCTCTCAAACTGGG 3882
DB 325 TACTTGACCTCTTAAAGTATGACACCTGATGATGAGAGCTGCTCTCAAACTGGG 266
QY 3883 GCCCTCCCTGCTCCCTTGGAGACAAATCTTAAATGCCAGGCTGGAGTGGTGAAGA 3942
DB 265 GCCCTCCCTGCTCCCTTGGAGACAAATCTTAAATGCCAGGCTGGAGTGGTGAAGA 206
QY 3943 TGGAACTGCTGCTGAGTGCACCACTTCAAGTGCACACAGAGAGTGTATGCAACACT 4002
DB 205 TGGAACTGCTGCTGAGTGCACCACTTCAAGTGCACACAGAGAGTGTATGCAACACT 146
QY 4003 GTGATTTAAGCTGCTGCTGAGAGTATTTATGACCTGCTGATTTAAAAAATAACACC 4062
DB 145 GTGATTTAAGCTGCTGCTGAGAGTATTTATGACCTGCTGATTTAAAAAATAACACC 86
QY 4063 AGTCTGTCCCATGAGCCACTTGGCTTCCCTGATGATTCCTGATGAGATATTTAC 4122
DB 85 AGTCTGTCCCATGAGCCACTTGGCTTCCCTGATGATTCCTGATGAGATATTTAC 26
QY 4123 ATGAATTCATTTTACTTTATTC 4145
DB 25 ATGAATTCATTTTACTTTATTC 3

RESULT 6
BM834810 391 bp mRNA linear EST 06-MAR-2002
LOCUS BM834810
DEFINITION K-EST0109948 S20T65307 Homo sapiens cDNA clone S20T65307-49-B07
5', mRNA sequence.

ACCESSION BM834810
VERSION BM834810
KEYWORDS EST.
SOURCE human.

ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 391)
AUTHORS Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R.,
Oh, K.U., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
Kim, Y.S.

TITLE 21C Frontier Korean EST Project 2001
JOURNAL Unpublished (2002)
COMMENT Contact: Kim YS
Genome Research Center

Korea Research Institute of Bioscience & Biotechnology
52 Eoeun-dong, Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
Email: yongsung@mail.kribb.re.kr
AUTHORS
Plate: 49 row: B column: 07
High quality sequence stop: 391.

FEATURES

Location/Qualifiers
1. 391

/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="S20T65307-49-B07"
/clone_1lb="S20T65307"
/sex="M"
/lab_host="Top10F"
/note="Organ: Stomach. Vector: pcns; Site: 1: EcoRI;
Site: 2: NotI. The poly (A)+ RNA was dephosphorylated with
bacterial alkaline phosphatase (BAP) and then decapped
with tobacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including EcoR
I site by treatment of T4 RNA ligase and the first strand
cDNA was synthesized from oligo dt-selected mRNA by
priming with dt-tailed vector. The dt-tailed vector was
adjusted to have about 60nt. The cDNA vector was
circularized with E. coli DNA ligase after digestion of
EcoRI which site is also included in vector. An RNA strand
converted to a DNA strand by Okayama-Berg method. The
obtained cDNA vectors were used for transformation of
competent cells E. coli Top10F by electroporation method.
The cDNA libraries constructed by this method are
full-length enriched cDNA library."

BASE COUNT 70 a 126 c 125 g 70 t
ORIGIN

Query Match

Best Local Similarity 100.0%; Score 348; DB 14; Length 391;
Matches 348; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3167 GCCCTCCGACGTTCTGGCAGCAACGGCTCCATCTCCAGCAAGAGAGTGCGGGG 3226
DB 44 GCCCTCCGACGTTCTGGCAGCAACGGCTCCATCTCCAGCAAGAGAGTGCGGGG 103
QY 3227 AGCCCGCATGACCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 3286
DB 104 AGCCCGCATGACCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 163
QY 3287 GGAGATGCTGAGATGGCCAGAGGGGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 3346
DB 164 GGAGATGCTGAGATGGCCAGAGGGGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 223
QY 3347 CCTGCTGGCAGAGCCCAAGGTCATGTTAGAGACATCTCGGCGAGCAGCTGAGCGA 3406
DB 224 CCTGCTGGCAGAGCCCAAGGTCATGTTAGAGACATCTCGGCGAGCAGCTGAGCGA 283
QY 3407 GGTCGCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 3466
DB 284 GGTCGCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 343
QY 3467 GGCCCGGAGAGTGGCCAGCAGCTGAAGCAGCTGGTGGTGGTGGTGGTGGTGGTGG 3514
DB 344 GGCCCGGAGAGTGGCCAGCAGCTGAAGCAGCTGGTGGTGGTGGTGGTGGTGGTGG 391

RESULT 7
AM297448/c 414 bp mRNA linear EST 16-JAN-2000
LOCUS AM297448
DEFINITION UI-H-BW0-ais-f-03-0-UI.s1 NCI CGAP_Sub6 Homo sapiens cDNA clone
IMAGE:2730388 3', mRNA sequence.
ACCESSION AM297448
VERSION AM297448.1 GI:6704084
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens

REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
1 (bases 1 to 414)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgaps-remail.nih.gov
The sequence contained an oligo-dt track that was present in the
oligonucleotide that was used to prime the synthesis of first
strand cDNA and therefore this may represent a bonafide poly A
tail. cDNA library preparation: M.B. Soares Lab Clone distribution:
NCI-CGAP clone distribution information can be found through the
I.M.A.G.E. Consortium/ILM at:
www.bio.lnl.gov/bdrp/image/image.html
Seq primer: M13 Forward
POLY-A-yes

FEATURES

Source

Location/Qualifiers

1. 414
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:2730388"
/clone_1lb="NCI CGAP Sub6"
/lab_host="DH10B (Life Technologies)"
/note="Vector: pT73D-Pac (Pharmacia) with a modified
polylinker. Site: 1: Not I; Site: 2: Eco RI; NCI CGAP Sub6
is a subtracted library derived from BW, which consists of
a mixture of four normalized libraries: NCI CGAP Brn50,
NCI CGAP Lnl3, NCI CGAP Ovl8, GBC1. The NCI CGAP Sub6
library had 7 million recombinants. A single-stranded DNA
preparation of BW was used as a tracer in a subtractive
hybridization with a driver comprising the IMAGE pool
(NCI CGAP Kid3 pool 1 LLM 3334-3337, 3682-3683,
3798-3803 (IMAGE Clonoids 1322376-1323911,
1456008-1456775, 1500552-1502855); NCI CGAP Kid5 pool 1
LLM 3338-3342, 3722-3725, 3776-3778 (IMAGE Clonoids
1323912-1325831, 1471368-1472903, 1492104-1493255);
NCI CGAP Lnl5 pool 1 LLM 3575-3582, 3851-3854 (IMAGE
Clonoids 144920-1417991, 1509094-1522439); NCI CGAP GC4
pool 1 LLM 3164-3167, 3716-3720, 3733-3735 (IMAGE
Clonoids 1257096-1258631, 1469064-1470983, 1475592-1476743
); NCI CGAP Pr22 pool 1 LLM 2457-2459, 2758-2759,
3062-3068 (IMAGE Clonoids 985608-986759, 1101192-1101959,
1217928-1220615); NCI CGAP Co10 pool 1 LLM 2644-2653,
2871-2872 (IMAGE Clonoids 1057416-1061255, 1144584-1145351
). (50% of the driver population), plus a pool of 3,840
arrayed clones from NCI CGAP Sub1 (IMAGE Clonoids
2708616-2710535) and NCI CGAP Sub2 (IMAGE Clonoids
2710536-2712455) (20% of the driver population), plus a
pool of 11,136 clones from NCI CGAP Sub3 (IMAGE Clonoids
2712456-2723591) (30% of the driver population).
Subtraction was performed as previously described [Bonaldo
, Lennon & Soares (1996): Normalization and Subtraction:
Two Approaches to Facilitate Gene Discovery. Genome
Research 6, 791-806.
TAG LIB=NCI CGAP_Ov18
TAG_TISSUE=ovary
TAG_SEQ=CGACA

BASE COUNT 115 a 83 c 105 g 111 t
ORIGIN

Query Match

Best Local Similarity 99.7%; Score 346; DB 10; Length 414;
Matches 396; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3749 TGGGAGATGAGAGAAAGATATCCCAAGCTTATTTCTCAAGCTTGCTC 3808
DB 414 TGGGAGATGAGAGAAAGATATCCCAAGCTTATTTCTCAAGCTTGCTC 355
QY 3809 CCCATCAAGCCCTTACTTGACCTCTCAACAAGTAGACCTTGATGTGCGAGCTTC 3868
DB 354 CCCATCAAGCCCTTACTTGACCTCTCAACAAGTAGACCTTGATGTGCGAGCTTC 295

Query Match	8.28;	Score 339;	DB 12;	Length 513;
Best Local Similarity	99.7%;	Pred. No. 2.3e-156;		
Matches 389;	Conservative	0;	Mismatches 1;	Indels 0;
			Gaps	0

RESULT 10
AM950935

LOCUS	AW950935	621 bp	mRNA	linear	EST 01-JUN-2000
DEFINITION	EST363805	MAGE resequences, MAGE Homo sapiens cDNA, mRNA sequence.			
ACCESSION	AW950935				
VERSION	AW950935.1	GI:8140599			
KEYWORDS	EST.				
SOURCE	human.				

REFERENCE

AUTHORS
Heede, P., Ol, R., Abernathy, K., Dharan, S., Gasnard, B., Gav, C., Hagl,

Eukariyota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.

1 (bases 1 to 621)

TITLE	Assessment of gene expression patterns in a model of colon tumor metastasis using a 19,200 element cDNA microarray
JOURNAL	Unpublished (2000)
COMMENT	Contact: John Quackenbush

The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
Tel.: 301 838 3528

FEATURES

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Best Local Similarity	100.0%;	Pred. No. 1.7e-137;		
Matches 301;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

QY 2702 GGACATCACCAACCCCCAAGCTGCTGCTCCAAAAGCTGGCCAGGTGGCCACAGA 2761

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Db 139 AGAGCCTGAGAGACAGAGCGCTGGAGGCCCTGTCCACGCCCTCAGAGTACACGCAAGTGGA 198

QY 2822 GTTACCAACAGCCCCACATTCTGAGGTCCTAGAGAGTCCCGTCCCTCCGGGTCTC 2883

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Db 259 TGCCTGCTTCGCTTCCACGCTCCCATTTCTGAAGCCACAGTTTACTTCATCAGTC 318

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Db 379 C 379

RESULT 11

LOCUS	AM445097	364 bp	mRNA	linear	EST 17-FEB-2000
DEFINITION					
ACCESSION					
VERSION					
KEYWORDS					
PROJECT					
ORIGIN					
FEATURES					
DESCRIPTION					
REFERENCES					
COMMENTS					
SEQUENCE					

IMAGE: 2733815 3', mRNA sequence.
AM445097

VERSION	AM42007.1	GI:05800539
KEYWORDS	EST.	
SOURCE	human.	

ORGANISM	
Homo sapiens	
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	
Muraenidae; Elasmobranchii; Chondrichthyes; Squaliformes; Squali-	

REFERENCE
1 (bases 1 to 364)
NCI-CCGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.

JOURNAL, TITLE
national Cancer Institute, Cancer Genome Anatomy Project (CGAP)
Tumor Gene Index
(published 1997)

COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov

oligonucleotide that was used to prime the synthesis of first strand cDNA and therefore this may represent a bonafide poly A

NCI-CGAP clone distribution information can be found through the IMA GE Consortium/INT at: <http://www.imagenet.org>, call, CGAP Library Preparation: M.B. Soares Lab clone distribution: soares@imc.nci.nih.gov

www-bio.11nl.gov/bbrp/image/image.html
Seq primer: M13 Forward

FEATURES	Location/Qualifiers
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/lab_host="DH10B (Life Technologies)"
/note="Vector: pT73D-Pac (Pharmacia) with a modified

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polylinker. Site 1: Not I; Site 2: Eco RI; NCI CGAP Sub5 is a subtracted library derived from NCI CGAP Sub4. The NCI CGAP Sub5 library had 3 million recombinants. A single-stranded DNA preparation of NCI CGAP Sub4 was used as a tracer in a subtractive hybridization with a driver comprising the IMAGE pool (NCI CGAP Kid3 pool 1 LAM 3334-3337, 3682-3683, 3798-3803 (IMAGE Clones 132376-132391, 1456008-1456775, 1500552-1502855); NCI CGAP Kid5 pool 1 LAM 3338-3342, 3722-3725, 3776-3778 (IMAGE Clones 1323912-1325831, 1471368-1472903, 1492104-1493255); NCI CGAP LMS pool 1 LAM 3575-3582, 3851-3854 (IMAGE Clones 1414920-1417991, 1520904-1522439); NCI CGAP GC4 pool 1 LAM 3164-3167, 3716-3720, 3733-3735 (IMAGE Clones 1257096-1258631, 1469064-1470983, 1475592-1476743); NCI CGAP Pr22 pool 1 LAM 2457-2459, 2758-2759, 3062-3068 (IMAGE Clones 985608-986759, 1101192-1101959, 1217928-1220615); NCI CGAP CO10 pool 1 LAM 2644-2653, 2871-2872 (IMAGE Clones 1057416-1061255, 1144584-1145351). (10% of the driver population), plus a pool of 3,840 arrayed clones from NCI CGAP Sub1 (IMAGE Clones 2710536-2710535) and NCI CGAP Sub2 (IMAGE Clones 2710536-2712455) (10% of the driver population), plus a pool of 11,136 clones from NCI CGAP Sub3 (IMAGE Clones 2712456-2723591) (10% of the driver population), plus a pool of 5,472 clones from NCI CGAP Sub4 (IMAGE Clones 2723592-2728969) (70% of the driver population). Subtraction was performed as previously described [Bonaldo & Soares (1996)]: Normalization and Subtraction: Two Approaches To Facilitate Gene Discovery. Genome Research 6, 791-806.

Research 6, 791-806.
TAG_Lib-NCI CGAP_CO10
TAG_TISSUE=COLON
TAG_SEQ=AAACG"

BASE COUNT 102 a 93 g 99 t
ORIGIN

Query Match 7.1%; Score 296; DB 10; Length 364;
Best Local Similarity 99.7%; Pred. No. 4.5e-135;
Matches 346; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Db 364 AACCTTCCTCCCAATCAAGCCCTTACTGACCTCTAACAGTAGACCCCTGATTCAT 305
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OY 3859 CGAGAGCTCTCTCTCAAACTGGGGCTCCCTGGTCTTGAAGACAAATCTTAAATGC 3918
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Db 304 CGAGAGCTCTCTCTCAAACTGGGGCTCCCTGGTCTTGAAGACAAATCTTAAATGC 245
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OY 3919 CAGGCGTGGGAGAGTGGTGAAGTGAAGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 3978
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Db 244 CAGGCGTGGGAGAGTGGTGAAGTGAAGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 185
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OY 3979 ACCAGGAGTGGTCTATCCACACCTGTATTTACTGCTGTGTACAGTATTTATGAC 4038
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OY 4039 TCTGTATTTAAAAAAGTAAACCCAGTCTGTCCCACTGGGCTTCCCTGTA 4098
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OY 4099 TGATTCCTGTGAGATTTATGATTAATGATTTATTTATTTAATC 4145
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RESULT 12
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LOCUS
DEFINITION UT-H-B13-aku-h-08-0-UI.s1 NCI CGAP Sub5 Homo sapiens cDNA clone
IMAGE:2735846 3, mRNA sequence.
ACCESSION AM449618
VERSION AM449618.1 GI:6990324
KEYWORDS EST.

SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 355)
AUTHORS
TITLE
JOURNAL
COMMENT
CONTACT: Robert Strausberg, Ph.D.
Email: cgabbs@remail.nih.gov
The sequence contained an oligo-dT track that was present in the oligonucleotide that was used to prime the synthesis of first strand cDNA and therefore this may represent a Bonalde poly A tail. cDNA library preparation: M.B. Soares Lab Clone distribution: NCI CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/ELN at: www.bio.lnl.gov/dbp/image/image.html The following repetitive elements were found in this cDNA sequence: 1-27, >AT-rich#low-complexity
Seq primer: M13 Forward
POLYA=Yes.

FEATURES
source
location/qualifiers
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/db_xref="taxon:9606"
/clone="IMAGE:2735846"
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/lab_host="BDH10B (Life Technologies)"
/note="Vector: pRT3D-Pac (Pharmacia) with a modified polylinker. Site 1: Not I; Site 2: Eco RI; NCI CGAP Sub5 is a subtracted library derived from NCI CGAP Sub4. The NCI CGAP Sub5 library had 3 million recombinants. A single-stranded DNA preparation of NCI CGAP Sub4 was used as a tracer in a subtractive hybridization with a driver comprising the IMAGE pool (NCI CGAP Kid3 pool 1 LAM 3334-3337, 3682-3683, 3798-3803 (IMAGE Clones 132376-132391, 1456008-1456775, 1500552-1502855); NCI CGAP Kid5 pool 1 LAM 3338-3342, 3722-3725, 3776-3778 (IMAGE Clones 1323912-1325831, 1471368-1472903, 1492104-1493255); NCI CGAP LMS pool 1 LAM 3575-3582, 3851-3854 (IMAGE Clones 1414920-1417991, 1520904-1522439); NCI CGAP GC4 pool 1 LAM 3164-3167, 3716-3720, 3733-3735 (IMAGE Clones 1257096-1258631, 1469064-1470983, 1475592-1476743); NCI CGAP Pr22 pool 1 LAM 2457-2459, 2758-2759, 3062-3068 (IMAGE Clones 985608-986759, 1101192-1101959, 1217928-1220615); NCI CGAP CO10 pool 1 LAM 2644-2653, 2871-2872 (IMAGE Clones 1057416-1061255, 1144584-1145351). (10% of the driver population), plus a pool of 3,840 arrayed clones from NCI CGAP Sub1 (IMAGE Clones 2710536-2710535) and NCI CGAP Sub2 (IMAGE Clones 2710536-2712455) (10% of the driver population), plus a pool of 11,136 clones from NCI CGAP Sub3 (IMAGE Clones 2712456-2723591) (10% of the driver population), plus a pool of 5,472 clones from NCI CGAP Sub4 (IMAGE Clones 2723592-2728969) (70% of the driver population). Subtraction was performed as previously described [Bonaldo & Soares (1996)]: Normalization and Subtraction: Two Approaches To Facilitate Gene Discovery. Genome Research 6, 791-806.
TAG_Lib-NCI CGAP_CO10
TAG_TISSUE=COLON
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BASE COUNT 100 a 90 g 96 t
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Query Match 7.0%; Score 289; DB 10; Length 355;
Best Local Similarity 99.7%; Pred. No. 1.3e-131;
Matches 339; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Db 355 TCTCCCATCAAGCCCTTACTGACCTCTAACAGTAGACCCCTGATTCGAG 296
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Db 235 CTGGGAGTGGGTGAAGATGGAACCTTCTGCTGAGTGCCACCACTTCAAGTACCAGC 176
OY 3984 GAGGCGATGCGACCACTGATGATTTACGCTTGTGTACAGTATTTATGCCCTGT 4043
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Db 175 GAGGCGATGCGACCACTGATGATTTACGCTTGTGTACAGTATTTATGCCCTGT 116
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Db 115 ATTTAAAAACTAACACCCAGCTGTTCCTCCATGCGCCACTGGGTCCTCCGTATGAT 56
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ACCESSION AM391328
VERSION AM391328.1 GI:6896091
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE
AUTHORS HCSP http://www.ludwig.org.br/OESTRES.
TITLE The FAPESP/LICR Human Cancer Genome Project
JOURNAL Unpublished (1999)
COMMENT Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
Brazil
Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?l=QV0&t2=QV0-ST0215-
061299-065-f03&t3=1999-12-06&t4=1)
Seq primer: puc 18 forward
High quality sequence start: 68
High quality sequence stop: 541.
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Site:2; Smal; A mini-library was made by cloning products
derived from OESTRES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the puc 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
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Best Local Similarity 99.3%; Pred. No. 1,2e-121;
Matches 419; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
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Db 392 TAAGATGGAGCCAGCTGTGATTTATCTGAGTACACAGGCGCTGGGAGATGAGGAAG 451
OY 3767 TGATATCCCGCCAGCTCAAGCTTATTTCTCAAGTGTCTCCATCAAGCCCTTTACT 3826
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LOCUS EST162077 MAGE resequences, MAGA Homo sapiens cDNA, mRNA sequence.
ACCESSION AM950112
VERSION AM950112.1 GI:8139648
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE
AUTHORS Hegde,P., Qi,R., Abernathy,K., Dharp,S., Gaspar,R., Gay,C., Holt
I.E., Saeed,A.I., Sharov,Y., Lee,N.H., Yeatman,T.J. and
Quackenbush,J.
TITLE Assessment of gene expression patterns in a model of colon tumor
metastasis using a 19,200 element cDNA microarray
JOURNAL Unpublished (2000)
COMMENT Contact: John Quackenbush
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
Tel: 301 838 3528
Fax: 301 838 0208
Email: johnd@tigr.org
Plate: 9
Seq primer: Reverse.
Location/Qualifiers
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GenCore version 5.1.4.p5.4578
Copyright (c) 1993 - 2003 Compugen Ltd.

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Gapop 60.0, Gapext 60.0

Searched: 441362 seqs, 153338381 residues

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Post-processing: Listing first 1000 summaries

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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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6	3381	81.6	4062	4	US-09-126-109-11
7	585	14.1	604	4	US-09-068-880-1
8	480	11.6	1026	4	US-09-068-880-14

ALIGNMENTS

RESULT 1
US-08-314-917-1
Sequence 1, Application US/08314917
Patent No. 5468630

GENERAL INFORMATION:

APPLICANT: Billier, Timothy R.
APPLICANT: Nussler, Andreas K.
APPLICANT: Geller, David A.
APPLICANT: Simmons, Richard L.
TITLE OF INVENTION: cDNA clone for Human Inducible Nitric
Oxide Synthase And Process for Preparing Same
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold B. Silverman

ADDRESSEE: Eckert Seamans Cherin & Mollott
STREET: 600 Grant Street, 42nd Floor
CITY: Pittsburgh
STATE: PA
COUNTRY: USA
ZIP: 15219
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/314,917
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/981,344
FILING DATE: 25-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Silverman, Arnold B.
REGISTRATION NUMBER: 22,614
REFERENCE/DOCKET NUMBER: 116972
TELECOMMUNICATION INFORMATION:
TELEPHONE: (412) 566-6000
TELEFAX: (412) 566-6099
TELEX: 866172
INFORMATION FOR SRO ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 4145 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA
DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide
SYNTHASE CDNA CLONE
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
TISSUE TYPE: Induced Human Hepatocyte RNA
IMMEDIATE SOURCE:
LIBRARY: Lambda Zap II cDNA
CLONE: PHINOS
POSITION IN GENOME:
CHROMOSOME/SEGMENT: unknown
MAP POSITION: unknown
UNITS: unknown
FEATURE:
NAME/KEY: CDS
LOCATION: 207..3668
IDENTIFICATION METHOD: Experiment
US-08-314-917-1
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Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB	61	AAGTTCGACGACAGGCTCTCTCTGCTGTTGACTGCTTACCCGGGGAGGAGTGC	120
QY	121	AGCCAGCTGCAAGCCCGCAGTGAAGAACATCTGAGTCGAATCCAGATAGTACATA	180
DB	121	AGCCAGCTGCAAGCCCGCAGTGAAGAACATCTGAGTCGAATCCAGATAGTACATA	180
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 QY 3361 CCAAGGCTATGTTCAAGAGATCTCTGGGAGAGCTGGCCAGGAGAGTGGTCCGTGTC 3420
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 Db 3361 CCAAGGCTATGTTCAAGAGATCTCTGGGAGAGCTGGCCAGGAGAGTGGTCCGTGTC 3420
 QY 3421 TCCACAGAGAGCCAGGCTCTATGTTGGGGGATGTGGCATGGCCGGAGCTGG 3480
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 Db 3421 TCCACAGAGAGCCAGGCTCTATGTTGGGGGATGTGGCATGGCCGGAGCTGG 3480
 QY 3481 CCAAGGCTATGTTCAAGAGATCTCTGGGAGAGCTGGCCAGGAGAGTGGTCCGTGTC 3540
 |||||
 Db 3481 CCAAGGCTATGTTCAAGAGATCTCTGGGAGAGCTGGCCAGGAGAGTGGTCCGTGTC 3540

QY 3541 ACTATTCTTTCAGCTCAAGACCGAGAGGCTATTCAGAGATATCTTGGTCTGAT 3600
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 Db 3541 ACTATTCTTTCAGCTCAAGACCGAGAGGCTATTCAGAGATATCTTGGTCTGAT 3600
 QY 3601 TTTCTTACAGAGGCGAAGAGAGACAGGTTGGCGGTGACAGCCAGAGCTTGAGATGTGAG 3660
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 Db 3601 TTTCTTACAGAGGCGAAGAGAGACAGGTTGGCGGTGACAGCCAGAGCTTGAGATGTGAG 3660
 QY 3661 CGCTCTAGAGGCTTACAGAGAGGCTTAAAGCTGCGGCGACAGAACTTAAAGATGAGACCA 3720
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 Db 3661 CGCTCTAGAGGCTTACAGAGAGGCTTAAAGCTGCGGCGACAGAACTTAAAGATGAGACCA 3720
 QY 3721 GCTCTGATATCTGAGATGACAGAGGCTGCGGAGATGAGAGATATCCCGAGC 3780
 |||||
 Db 3721 GCTCTGATATCTGAGATGACAGAGGCTGCGGAGATGAGAGATATCCCGAGC 3780
 QY 3781 CTCAGTCTTATTTCTCAAGGTTGCTCCCATCAAGCCCTTACTGACCTCTAACAA 3840
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 Db 3781 CTCAGTCTTATTTCTCAAGGTTGCTCCCATCAAGCCCTTACTGACCTCTAACAA 3840
 QY 3841 GTAGCAGCTGATGATGAGAGGCTCTCTCTCAAACTGGGCGCTCCCTGCTTGG 3900
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 QY 3901 AGACAAATCTTAAATGACAGGCTGCGAGAGTGGTGAAGATGAACTTGTCTGAGT 3960
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 Db 3901 AGACAAATCTTAAATGACAGGCTGCGAGAGTGGTGAAGATGAACTTGTCTGAGT 3960
 QY 3961 GCACACTTCAAGTACAGCAGGAGGCTGCTATGACACACTGATTAATGCTGCT 4020
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 Db 3961 GCACACTTCAAGTACAGCAGGAGGCTGCTATGACACACTGATTAATGCTGCT 4020
 QY 4021 TGTACATTTATTTATGCTCTGTTAAAAAATAACACCAATGCTTCCCATGGC 4080
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 Db 4021 TGTACATTTATTTATGCTCTGTTAAAAAATAACACCAATGCTTCCCATGGC 4080
 QY 4081 ACTTGGGCTTCCCTGATGATGCTTATGATGAGATATTAACATGATGATTTACTT 4140
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 Db 4081 ACTTGGGCTTCCCTGATGATGCTTATGATGAGATATTAACATGATGATTTACTT 4140
 QY 4141 TAAATC 4145
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 Db 4141 TAAATC 4145
 |||||
 RESULT 2
 ; Sequence 1, Application US/08265046
 ; Patent No. 5658565
 ; GENERAL INFORMATION:
 ; APPLICANT: Timothy R. Billiar
 ; APPLICANT: Edith Tzeng
 ; APPLICANT: Andreas K. Nussler
 ; APPLICANT: David A. Geller
 ; APPLICANT: Richard L. Simmons
 ; TITLE OF INVENTION: Inducible Nitric Oxide Synthase
 ; NUMBER OF SEQUENCES: 2
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Lewis F. Gould, Jr.
 ; ADDRESSEE: Eckert Seamans Cherin & Mellott
 ; STREET: 1700 Market Street, Suite 3232
 ; CITY: Philadelphia
 ; STATE: PA
 ; COUNTRY: USA
 ; ZIP: 19103
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/265,046

FILING DATE: 24-JUN-1994
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Gould, Lewis F. Jr.
REGISTRATION NUMBER: 25,057
REFERENCE/DOCKET NUMBER: 119130
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 575-6020
TELEFAX: (215) 575-6015
TELEX:
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 4145 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA
DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide
SYNTHESIS: Synthesis cDNA Clone
HYPOTHETICAL: NO
AMTI-SENSE: NO
ORIGINAL SOURCE: Induced Human Hepatocyte RNA
IMMEDIATE SOURCE:
LIBRARY: Lambda Zap II cDNA
CLONE: PHINOS
POSITION IN GENOME:
CHROMOSOME/SEGMENT: unknown
MAP POSITION: unknown
UNITS: unknown
FEATURE:
NAME/KEY: CDS
LOCATION: 207..3668
IDENTIFICATION METHOD: Experiment
US-08-265-046-1

Query Match 100.0%; Score 4145; DB 1; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTTAAATCTCGGCGACCTTTGATGAGGGGACTGGGAGTTTACAGACAGTCCG 60
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QY 61 AAGTTCTCAAGGACAGGTTCTTCTGTTGACTGTCCTTACCCGGGAGGCGAGTGC 120
DB 61 AAGTTCTCAAGGACAGGTTCTTCTGTTGACTGTCCTTACCCGGGAGGCGAGTGC 120
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DB 121 AGCAGGTGCAAGCCCGACAGTGAAGATGAGTGGCTGCTTGAATTTCTGTTCAAGACA 240
QY 181 GTGACCTGCTTTGTAAGCCATGAGATGAGTGGCTGCTTGAATTTCTGTTCAAGACA 240
DB 181 GTGACCTGCTTTGTAAGCCATGAGATGAGTGGCTGCTTGAATTTCTGTTCAAGACA 240
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DB 241 AATTTCACCAAGTATGAAATGAGGAAAAAGACATCAACAACATGTGGAGAAAGCCC 300
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DB 301 CCTGTCCACCTTCAGATGACAGAGATGACCTTCAATTCAGATGACAGATGAC 360
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DB 361 AGCAGATGATGATCCCGACAGCCCTGTTGAGAGACGGGAAAGAGTCTCCAGATCTTGG 420
QY 421 TCAAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
DB 421 TCAAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
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DB 481 GCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 540
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DB 541 CCAATCTTGCTGGGAGGTCATTTAGTCCCAAAAGTTTACAGAGGAGCCAGGAGCA 600
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DB 601 AGCCTACCCCTTCAGATGAGTGTCTTACCTCAAGCTATGGAATTTGTCAACCAATATTAC 660
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DB 661 GCTCTTTAAAGAGGCAAAATTAAGAGACATCTGGCCAGGTTGAAGCCGTAACAAAG 720
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DB 721 AGATGAAGCAAGAGGAGTACCAACCTGAGGAGGAGTGAAGTGAAGTGAAGTGAAGTGAAG 780
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DB 781 AGGCTGGCGCAATGCCCCAGCTGATGAGGAGATTCACATGCTCCACCTGAGGCT 840
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DB 841 TCGATGCCCCGAGCTGTTCCATGCTCCGCGGAAATGTTGAACACATCTGACAGACAGTGC 900
QY 901 GTTACTCCACCAACATGAGCAACATCAGTGGGATCAGCTTCCGCGAGGAGTGC 960
DB 901 GTTACTCCACCAACATGAGCAACATCAGTGGGATCAGCTTCCGCGAGGAGTGC 960
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DB 961 ATGGCAACACAGCTTCCGCGGAGTGAAGTGTCAAGTCACTGATGCTGATGCTGATGCTGAT 1020
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DB 1021 TGCCAGATGAGCAGTCAAGGAGGAGCCCTGCAACGATGGAATTCACCTGATGCTGATGCT 1080
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DB 1081 ACCTGGGCTGGAAGCCCAAGTACGCGCTTCGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1140
QY 1141 ATGGCGGTGACCTTGAGCTCTTGAATTCACCTGACCTTGTGCTGCTGCTGCTGCTGCTGCT 1200
DB 1141 ATGGCGGTGACCTTGAGCTCTTGAATTCACCTGACCTTGTGCTGCTGCTGCTGCTGCTGCT 1200
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DB 1201 AACATCCCAATACGAGTGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGT 1260
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DB 1261 TGCCCAACATGCTGTTGAGTGGGCGGCTGAGTTCACAGGCTGCTGCTGCTGCTGCTGCTGCT 1320
QY 1321 GGTACATGAGGACAGATGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGT 1380
DB 1321 GGTACATGAGGACAGATGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGT 1380
QY 1381 TGGAGGAAGTGGGAGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGG 1440
DB 1381 TGGAGGAAGTGGGAGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGGGAGTGG 1440
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DB 1441 ACCAGGCTGCTGTTGAGATCAACATTCCTGATGATCCATGATTTTCAAGAACCAATATGTA 1500
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DB 1501 CCATCATGAGACACACACTCGGCTGAGAAATCTTCAATGAAGTACAGATGAGATGAGATGAG 1560
QY 1561 GGTCCCGTGGGAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1620

Db 1561 GGTCCGCTGGGGGCTGCCGCGAGACTGGATTGGCTGCTCCCTCCCATGTCTGGAGCA 1620
Qy 1621 TCACCCCGCTGTTTACACAGAGATGCTGAACAGCTCCGTCCTCTTCTACTATATC 1680
Db 1621 TCACCCCGCTGTTTACACAGAGATGCTGAACAGCTCCGTCCTCTTCTACTATATC 1680
Qy 1681 AGGTAGAGGCTGGAAAACCCATGTCTGGCAGAGAGAAAGCGAGAGACCCAGAGAGAG 1740
Db 1681 AGGTAGAGGCTGGAAAACCCATGTCTGGCAGAGAGAAAGCGAGAGACCCAGAGAGAG 1740
Qy 1741 AGATTCCATTGAAAGTCTGGTGAAGAGTGTCTTTGCTGTATGTGATGCCAAGA 1800
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Qy 1801 CAATGGCGTCCGAGTCAGAGTCAACATCCCTTTGCGACAGAGAGAGAAATCGATCAGAG 1860
Db 1801 CAATGGCGTCCGAGTCAGAGTCAACATCCCTTTGCGACAGAGAGAGAAATCGATCAGAG 1860
Qy 1861 CCGTGGCTGGGAGCTGGGGGCTTATTAGCTGTGCTTCAACCCCAAGGTTGTCTGCA 1920
Db 1861 CCGTGGCTGGGAGCTGGGGGCTTATTAGCTGTGCTTCAACCCCAAGGTTGTCTGCA 1920
Qy 1921 TGGATTAGTACAGAGCTGAGCTGCTTGGAGAGAGAACGCTGCTGTTGTGTGACAGTA 1980
Db 1921 TGGATTAGTACAGAGCTGAGCTGCTTGGAGAGAGAACGCTGCTGTTGTGTGACAGTA 1980
Qy 1981 CGTTTGGCAATGGAGAGCTGCGCTGGCAATGGAGAGAAATGAGAAATGCTTCATGC 2040
Db 1981 CGTTTGGCAATGGAGAGCTGCGCTGGCAATGGAGAGAAATGAGAAATGCTTCATGC 2040
Qy 2041 TGAAGAAGCTCAACAACAATTCAGGTACGCTGTGTTGGCTCGGCTCCAGCATGTATCC 2100
Db 2041 TGAAGAAGCTCAACAACAATTCAGGTACGCTGTGTTGGCTCGGCTCCAGCATGTATCC 2100
Qy 2101 CTGCGTCTGGCGCTTTGCTCATGATGATCAGAGAGTGTGCCACCTGGGGGCTCTGC 2160
Db 2101 CTGCGTCTGGCGCTTTGCTCATGATGATCAGAGAGTGTGCCACCTGGGGGCTCTGC 2160
Qy 2161 AGCTCAACCCGATGGAGAGAGGGGATGAGCTAGTGGCAGAGAGAGAGAGCTTCCGAGCT 2220
Db 2161 AGCTCAACCCGATGGAGAGAGGGGATGAGCTAGTGGCAGAGAGAGAGAGCTTCCGAGCT 2220
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Db 2221 GGGCCCTGCAAACTTCAGAGGAGCTGTGAGACGTTTATGTCCGAGGCAAAAGCACA 2280
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Db 2281 TTCAGATCCCAAGCTCTACACCTCCATGTGACCTGGAGCCCGACACCTACAGGCTCG 2340
Qy 2341 TGCAGAGCTACAGCTTTTGAACCTTCAGCAAAAGCCCTCAGCAGCATGTGCCAAGAGC 2400
Db 2341 TGCAGAGCTACAGCTTTTGAACCTTCAGCAAAAGCCCTCAGCAGCATGTGCCAAGAGC 2400
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Db 2401 TGGTTCACATGAGGCTCAAAATCTGGCAGAAATCTCAAAAGTCCGACATCCACCCCTGCA 2460
Qy 2461 CCATCCTGGTGGAACTCTCTGTGAGAGATGGCAGAGGCTGAACTACCTGCCGGGGAGAC 2520
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Qy 2521 ACCTTGGGGTTTGGCCAGGCAACAGCGGGCTGTGTCAGAGGATCTTGAAGCAGAGTGG 2580
Db 2521 ACCTTGGGGTTTGGCCAGGCAACAGCGGGCTGTGTCAGAGGATCTTGAAGCAGAGTGG 2580
Qy 2581 TGGATGGCCCAACCCCAAGAGAGTGGCGCTGGAGAGAGAGAGAGAGAGAGAGAGAGAG 2640
Db 2581 TGGATGGCCCAACCCCAAGAGAGTGGCGCTGGAGAGAGAGAGAGAGAGAGAGAGAGAG 2640
Qy 2641 ACTGGGTAGTACAG 2700
Db 2641 ACTGGGTAGTACAG 2700

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Qy 2761 AAGAGCTGAG 2820
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Qy 2821 AGTTACCAACAGCCCAATTCCTGAGAGTCTAGAGAGTCTCCGTCCGTGGGGTGT 2880
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Qy 2881 CTGCTGGCTCCCTGCTTCCCAAGCTCCCAATTCCTGAGAGTCTCCGTCCGTGGGGTGT 2940
Db 2881 CTGCTGGCTCCCTGCTTCCCAAGCTCCCAATTCCTGAGAGTCTCCGTCCGTGGGGTGT 2940
Qy 2941 CCTCCGGGATCACAGGCTCCAGAGATCCACCTGAGCTGTGGCGGTGACCTAACACA 3000
Db 2941 CCTCCGGGATCACAGGCTCCAGAGATCCACCTGAGCTGTGGCGGTGACCTAACACA 3000
Qy 3001 CCGAGATGGCCAGAGGCTCCCTGCAACAGAGTGTCTGAGCACAATGGGTCAAGAGCTGCA 3060
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Qy 3061 AGCCCAAG 3120
Db 3061 AGCCCAAG 3120
Qy 3121 ATCCCTCCCATCTGTGATCTCATCGGGCTGGCACAGAGATGTCGCTCCGCAAGT 3180
Db 3121 ATCCCTCCCATCTGTGATCTCATCGGGCTGGCACAGAGATGTCGCTCCGCAAGT 3180
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Db 3181 TCTGGCAGCAACGGCTCCATGATCTCCAGCACAAGGAGTGTGGGGAGGCGCATGACT 3240
Qy 3241 TGTGTTTGGGTGGCGCGCCAGATGAGAGACATCTACAGAGAGAGATGCTGGAGA 3300
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Db 3421 TCCAG 3480
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Db 3481 CCAAG 3540
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Qy 3601 TTCTTACAG 3660
Db 3601 TTCTTACAG 3660
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Db 3661 CGCTCTGAGGGCTTACAG 3720
Qy 3721 GCTCTGATTAATCTGAGAGTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3780
Db 3721 GCTCTGATTAATCTGAGAGTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3780

QY	3781	CTCAAGCTTATTTCCCTCAACGTTGCTCCCATCAAGCCCTTACTGACCTCTCAACA	3840
Db	3781	CTCAAGCTTATTTTCCCTCAACGTTGCTCCCATCAAGCCCTTACTGACCTCTCAACA	3840
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QY	3901	AGCAAAATCTTAAATGCCCAGGCGCTTGGCGAGTGGTGGAAAGATGGAACCTTGGTGTGAGT	3960
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QY	4021	TGTACAGTATTTATGCTCTGTATTTAAAAAACTAACCCAGTCTGTTCCCATGGCC	4080
Db	4021	TGTACAGTATTTATGCTCTGTATTTAAAAAACTAACCCAGTCTGTTCCCATGGCC	4080
QY	4081	ACTTGGGCTTCCCTGTATGATTCCTTGATGAGATATTACATGATTTGCAATTTACTT	4140
Db	4081	ACTTGGGCTTCCCTGTATGATTCCTTGATGAGATATTACATGATTTGCAATTTACTT	4140
QY	4141	TAAATC 4145	
Db	4141	TAAATC 4145	

RESULT 3
US-08-465-522-1

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1  GENERAL INFORMATION:
2  APPLICANT: Billiar, Timothy R.
3  APPLICANT: Nussler, Andreas K.
4  APPLICANT: Geller, David A.
5  APPLICANT: Simmons, Richard L.
6  TITLE OF INVENTION: cDNA Clone for Human Inducible Nitric
7  TITLE OF INVENTION: Oxide Synthase And Process for Preparing Same
8  NUMBER OF SEQUENCES: 2
9  CORRESPONDENCE ADDRESS:

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1  DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide
2  DESCRIPTION: Synthase cDNA Clone
3  HYPOTHETICAL: NO
4  ANTI-SENSE: NO
5  ORIGINAL SOURCE:
6  TISSUE TYPE: Induced Human Hepatocyte RNA
7  IMMEDIATE SOURCE:
8  LIBRARY: Lambda Zap II cDNA
9  CLONE: PHINOS
10 POSITION IN GENOME:
11 CHROMOSOME/SEGMENT: unknown
12 MAP POSITION: unknown
13 UNITS: unknown
14 FEATURE:
15 NAME/KEY: CDS
16 LOCATION: 207..3668
17 IDENTIFICATION METHOD: Experiment
18 US-08-465-522-1

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Db 721 AGATGAAACAAACAGAACTACCACTGACGGAGATGATGCTACTTTGCCAACCAAGC 780
Qy 781 AGGCTGGCGCAATGCCCCACGCTGATTTGGAGAGATCCATGGTCCCACTGCAAGTCT 840
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Db 901 GTTATCCACCAACAAATGGCAACATCAGTGGCCATCACCCTGTTCCCGAGCGAGTGC 960
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Qy 1321 GGTATGAGGCGACAGAGATGAGATCGGAGCTTCTGTGACGTCCAGCGCTACAGATCC 1380
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Db 1801 CAATGGCGTCCGAGTCAAGATGATCACCATCTCTTGGCAGAGAGAGAGAAATATGAGG 1860

Qy 1861 CGCTGGCTGGAGACCTGGGGGCTTATATGAGTGTGCTTCAACCCCAAGGTTGTGTGA 1920
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Db 2041 TGAAGAAGCTCAACAAATTCAGGTACGCTGTGTTTGGCTCGGCTCCAGATGATAC 2100
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Db 2101 CTGCGTTCGCGCTTGTGCTGATGATGATGATGATGATGATGATGATGATGATGATG 2160
Qy 2161 AGCTACCCCGATGGAGAGAGAGATGAGCTGAGTGGCAGAGAGAGAGAGAGAGAG 2220
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Db 2521 ACCTTGGGGTTTGGCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2580
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Qy 2641 ACTGGGTGAGTGAAG 2700
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Qy 2701 CGGACATACCAACCCCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2760
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Qy 2761 AAGAGCCAG 2820
Db 2761 AAGAGCCAG 2820
Qy 2821 AGTTACACCAAG 2880
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Qy 2881 CTGCTGGCTTCTCTTCCAGCTCCCATCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 2940
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-CT-US93-11401-1

Query Match 100.0%; Score 4145; DB 5; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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? APPLICANT: Education
? TITLE OF INVENTION: Inducible Nitric Oxide Synthase
? TITLE OF INVENTION: Gene for Treatment of Disease
? NUMBER OF SEQUENCES: 2
? CORRESPONDENCE ADDRESS:
? ADDRESSEE: Lewis F. Gould, Jr.
? ADDRESSEE: Eckert Seamans Cherin & Mellott
? STREET: 1700 Market Street, Suite 3232
? CITY: Philadelphia
? STATE: PA
? COUNTRY: USA
? ZIP: 19103
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Floppy disk
? COMPUTER: IBM PC compatible
? OPERATING SYSTEM: PC-DOS/MS-DOS
? SOFTWARE: Patent Release #1.0, Version #1.25
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: PCT/US95/07849
? FILING DATE:
? CLASSIFICATION:
? ATTORNEY/AGENT INFORMATION:
? NAME: Gould, Lewis F. Jr.
? REGISTRATION NUMBER: 25,057
? REFERENCE/DOCKET NUMBER: 119130-2
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: (215) 575-6020
? TELEFAX: (215) 575-6015
? TELEX:
? INFORMATION FOR SEQ ID NO: 1:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 4145 base pairs
? TYPE: nucleic acid
? STRANDEDNESS: double
? TOPOLOGY: linear
? MOLECULE TYPE: cDNA
? DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide
? HYPOTHEICAL: NO
? ANTI-SENSE: NO
? ORIGINAL SOURCE:
? TISSUE TYPE: Induced Human Hepatocyte RNA
? IMMEDIATE SOURCE:
? LIBRARY: Lambda zap II cDNA
? POSITION IN GENOME:
? CLONE: PHINOS
? CHROMOSOME/SEGMENT: unknown
? MAP POSITION: unknown
? UNITS: unknown
? FEATURE:
? NAME/KEY: CDS
? LOCATION: 207..3668
? IDENTIFICATION METHOD: Experiment
PCT-US95-07849-1

Query Match 100.0%; Score 4145; DB 5; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 4141 TAATC 4145
Db 4141 TAATC 4145

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RESULT 6
US-09-126-109-11
Sequence 11, Application US/09126109
Patent No. 6171856

GENERAL INFORMATION:
APPLICANT: Thilgen, Anice
APPLICANT: Holmeier, Hans-Ewald
APPLICANT: Newgard, Christopher B.
APPLICANT: Unger, Roger H.
APPLICANT: Shimabukuro, Michio
APPLICANT: Chen, Guaxun
APPLICANT: Rhodes, Christopher J.
APPLICANT: Hugl, Sigfrun R.
TITLE OF INVENTION: METHODS AND COMPOSITIONS RELATING
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:

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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/126,109
FILING DATE: 30-JUL-1998
CLASSIFICATION:
Prior Application DATA:
APPLICATION NUMBER: US 60/055,092
FILING DATE: 30-JUL-1997
Prior Application DATA:
APPLICATION NUMBER: US Unknown
FILING DATE: 03-MAR-1998
ATTORNEY/AGENT INFORMATION:
NAME: McMillian, Nabesela R.
REGISTRATION NUMBER: P-43,363
REFERENCE/DOCKET NUMBER: UTSD:560
TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 474-7577
TELEFAX: (512) 474-7577
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 4062 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-09-126-109-11

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Query Match
Best Local Similarity 99.7%; Score 3381; DB 4; Length 4062;
Matches 4031; Conservative 0; Mismatches 13; Indels 0; Gaps 0;

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OY 2082 CTGCGCTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2141
DB 1981 CTGCGCTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2040
OY 2142 TCCCACTGGGGGCTCTCAGCTCACCCTGATGGGAGAGAGAGAGAGAGAGAGAGAGAG 2201
DB 2041 TCCCACTGGGGGCTCTCAGCTCACCCTGATGGGAGAGAGAGAGAGAGAGAGAGAGAG 2100
OY 2202 GAGAGAGCTTCCGAGCTGGGGGCTGGCAACCTTCAAGCAGAGCTGAGAGCTTTGAT 2261
DB 2101 GAGAGAGCTTCCGAGCTGGGGGCTGGCAACCTTCAAGCAGAGCTGAGAGCTTTGAT 2160
OY 2262 GTCCAGGCAACAGCAGATTCAGATTCCTCAAGCTCTACACTCCATGATGAGAGCTGGAG 2321
DB 2161 GTCCAGGCAACAGCAGATTCAGATTCCTCAAGCTCTACACTCCATGATGAGAGCTGGAG 2220
OY 2322 CCGCAGCAGTACAGAGCTGCTGAGAGAGTACAGCTTTGAGCTCAGCAAGAGCTTACAG 2381
DB 2221 CCGCAGCAGTACAGAGCTGCTGAGAGAGTACAGCTTTGAGCTCAGCAAGAGCTTACAG 2280
OY 2382 AGCATGATGCGCAAGAGAGTGTTCACATGAGAGCTCAAAATCTCGGCAAAATCTCAAGT 2441
DB 2281 AGCATGATGCGCAAGAGAGTGTTCACATGAGAGCTCAAAATCTCGGCAAAATCTCAAGT 2340
OY 2442 CCGAGATGCGGCTGCGCAGCATCTGTTGAGAGTCTCTGTTGAGAGTGGCCAAAGGCTG 2501
DB 2341 CCGAGATGCGGCTGCGCAGCATCTGTTGAGAGTCTCTGTTGAGAGTGGCCAAAGGCTG 2400
OY 2502 AACACCTGCGGAGAGAGCACTTGGGGTTCGCCAGGCAACAGCTGGGCTGCTGCTCAA 2561
DB 2401 AACACCTGCGGAGAGAGCACTTGGGGTTCGCCAGGCAACAGCTGGGCTGCTGCTCAA 2460
OY 2562 GGCATCTGAGAGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 2621
DB 2461 GGCATCTGAGAGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 2520
OY 2622 CTGATGAGATGAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2681
DB 2521 CTGATGAGATGAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2580
OY 2682 CAGGCTCAGCTTACTCTCCCGGAGATACCAACACCCCAAGTGGGCTGCTCCAAAG 2741
DB 2581 CAGGCTCAGCTTACTCTCCCGGAGATACCAACACCCCAAGTGGGCTGCTCCAAAG 2640
OY 2742 CTGGGCGAGGAGGCGCAGAGAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2801
DB 2641 CTGGGCGAGGAGGCGCAGAGAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2700
OY 2802 TCAGAGTACAGCAAGTGAAGTTCACCAACAGCCCAATTCCTGAGAGAGTCTAGAGAGAG 2861
DB 2701 TCAGAGTACAGCAAGTGAAGTTCACCAACAGCCCAATTCCTGAGAGAGTCTAGAGAGAG 2760
OY 2862 TTCGCGTCCCTGGGGTGTCTGCTGCTTCTGCTTCCAGAGTCCCATTCCTGAAAGCC 2921

Job time : 154 secs

Db 421 CAGGAGGTGCTATGACACCACTGTATTAATGCTTGTGACACTTATTTATGCTTC 480
OY 4041 TGTATTTAAAAAATAACACCACTGTGTTCCCATGGCCACTTGGGCTCTCCCTGATG 4100
Db 481 TGTATTTAAAAAATAACACCACTGTGTTCCCATGGCCACTTGGGCTCTCCCTGATG 540
OY 4101 ATTCCTTGATGAGATTTTACATGAATTTGATTTTACTTTTAAATC 4145
Db 541 ATTCCTTGATGAGATTTTACATGAATTTGATTTTACTTTTAAATC 585

RESULT 8

US-09-068-880-14
; Sequence 14, Application US/09068880B
; Patent No. 6203982
; GENERAL INFORMATION:
; APPLICANT: Nunokawa, Youichi
; APPLICANT: Oikawa, Shinzo
; APPLICANT: Tanaka, Shoji
; TITLE OF INVENTION: Method for Screening Compounds
; TITLE OF INVENTION: Regulating the Expression of Human-Inducible Nitric Oxide
; FILE REFERENCE: SHIM-001
; CURRENT APPLICATION NUMBER: US/09/068, 880B
; CURRENT FILING DATE: 1998-09-02
; EARLIER APPLICATION NUMBER: PCT/JP97/03303
; EARLIER FILING DATE: 1997-09-18
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 1026
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-068-880-14

Query Match 11.6%, Score 480; DB 4; Length 1026;
Best Local Similarity 100.0%; Pred. No. 2.2e-220;
Matches 480; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 3666 TGAGGGCTACAGGAGGGGTTAAAGCTCCGGACACAGAACTTAAGATGAGCCAGCTCT 3725
Db 1 TGAGGGCTACAGGAGGGGTTAAAGCTCCGGACACAGAACTTAAGATGAGCCAGCTCT 60
OY 3726 GCATTATCTGAGGTACAGAGGCTGGGAGATGATGAGAAAGTATATCCCCAGCTCAA 3785
Db 61 GCATTATCTGAGGTACAGAGGCTGGGAGATGATGAGAAAGTATATCCCCAGCTCAA 120
OY 3786 GCTTATTTCCCAAGCTGCTCCCATCAAGCCCTTACTTGACCTCCTAACAAGTAGC 3845
Db 121 GCTTATTTCCCAAGCTGCTCCCATCAAGCCCTTACTTGACCTCCTAACAAGTAGC 180
OY 3846 ACCCTGATTTGATGAGGAGCTCTCTCAAACTGGGGCTCCCTGCTCCCTTGAGACA 3905
Db 181 ACCCTGATTTGATGAGGAGCTCTCTCAAACTGGGGCTCCCTGCTCCCTTGAGACA 240
OY 3906 AAATCTTAATGCGAGGCTGGCGAGTGGGTGAAGAATGGAACCTGCTGAGTGCAC 3965
Db 241 AAATCTTAATGCGAGGCTGGCGAGTGGGTGAAGAATGGAACCTGCTGAGTGCAC 300
OY 3966 ACTTCAAGTACACAGGAGGCTGCTATGCAACCACTGTATTTAAGTCCCTGTGTAC 4025
Db 301 ACTTCAAGTACACAGGAGGCTGCTATGCAACCACTGTATTTAAGTCCCTGTGTAC 360
OY 4026 AGTTATTTAGCTCTGTATTTAAAAAATAACACCACTGTTCCCATGGCCACTTG 4085
Db 361 AGTTATTTAGCTCTGTATTTAAAAAATAACACCACTGTTCCCATGGCCACTTG 420
OY 4086 GGTCTTCCCTGTATGATCTGTATGATGAGATATTTACATGAATTTGATTTTACTTAATC 4145
Db 421 GGTCTTCCCTGTATGATCTGTATGATGAGATATTTACATGAATTTGATTTTACTTAATC 480

Search completed: March 14, 2003, 13:34:01

GenCore version 5.1.4 p5.4578
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OM nucleic - nucleic search, using sw model

Run on: March 14, 2003, 08:01:33 ; Search time 10444 Seconds

(without alignments)
11550.281 Million cell updates/sec

Title: US-09-490-208-3

Perfect score: 4145

Sequence: 1 ctgccttaaaatctctcgcgc.....aattgcatttacttaattc 4145

Scoring table: OLIGO_NUC

Gapop 60.0 ; Gapext 60.0

Searched: 2054640 segs, 14551402878 residues

Word size : 50

Total number of hits satisfying chosen parameters: 92

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 1000 summaries

Database :

GenEmbl:*

1: gb.ba:*

2: gb.htg:*

3: gb.in:*

4: gb.om:*

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33: em.htg.mus:*

34: em.htg.pln:*

35: em.htg.rod:*

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39: em.htgo.hum:*

40: em.htgo.mus:*

41: em.htgo.other:*

score greater than or equal to the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	4145	100.0	4145	6 I15516	I15516 Sequence 1
2	4145	100.0	4145	6 I61175	I61175 Sequence 1
3	4145	100.0	4145	9 HUMT105A	L09210 Homo sapien
4	3503	84.5	35764	12 AY046510	AY046510 Adenovira
5	3482	84.0	4144	6 A39980	A39980 Sequence 1
6	3482	84.0	4154	6 A39980	X73029 H. sapiens m
7	3381	81.6	4062	6 AR124185	U31511 Human indic
8	3357	81.0	4150	6 AF067222	AX067222 Sequence
9	3357	81.0	4150	6 AF068236	AF068236 Homo sapi
10	3357	81.0	4150	6 AF068236	AF068236 Homo sapi
11	3327	80.3	3946	6 AX067221	U20141 Human indic
12	3327	80.3	3946	6 HSU20141	D26525 Human mRNA
13	3290	79.4	3946	9 HUMT105A	L24553 Homo sapien
14	3085	74.4	3595	9 HUMT105A	U05810 Human indic
15	3039	73.3	3855	9 HSU05810	U05810 Human indic
16	1970	47.5	3345	6 AB022318	AB022318 Homo sapi
17	1790	44.1	604	6 AR142643	AR142643 Homo sapi
18	585	14.1	604	6 E28937	E28937 Method for
19	504	12.2	64641	2 AC130289	AC130289 Homo sapi
20	504	12.2	116026	2 AC131306	AC131306 Homo sapi
21	504	12.2	156907	6 HS66C13	AL354047 Homo sapi
22	480	11.6	1026	6 AR142656	AR142656 Sequence
23	480	11.6	1026	6 E28948	E28948 Method for
24	286	6.9	634	9 HSNOS2E17	X85781 H. sapiens N
25	200	4.8	351	9 HSNOS2E12	X85768 H. sapiens N
26	197	4.5	64641	2 AC130289	AC130289 Homo sapi
27	185	4.8	174503	9 AC005697	AC005697 Homo sapi
28	183	4.4	268	9 HSNOS2E2	X85760 H. sapiens N
29	180	4.3	180	9 S76479	S76479 Calcium-cal
30	179	4.3	339	9 HSNOS2E17	X85773 H. sapiens N
31	165	4.0	343	9 HSNOS2E6	X85764 H. sapiens N
32	155	3.7	433	9 HSNOS2E12	U24641 Human chrom
33	155	3.7	566	9 HSNOS2E11	X81701 H. sapiens N
34	150	3.6	480	9 HSNOS2E12	X85770 H. sapiens N
35	147	3.5	348	9 HSNOS2E14	X85766 H. sapiens N
36	144	3.5	602	9 HSNOS2E89	X85780 H. sapiens N
37	137	3.3	269	9 HSNOS2E26	X81702 H. sapiens N
38	137	3.3	438	9 HSNOS2E18	X85774 H. sapiens N
39	135	3.3	273	9 HSNOS2E18	L26055 Human nitri
40	133	3.2	622	9 HUMT105A	D29675 Human indic
41	133	3.2	1291	9 HSNOS2E5	X85782 H. sapiens p
42	133	3.2	5493	9 HSNOS2E5	X85763 H. sapiens N
43	125	3.0	287	9 AX348110	AX348110 Sequence
44	110	2.7	1407	6 AF017634	AF017634 Homo sapi
45	110	2.7	8464	9 HSNOS2E15	X85771 H. sapiens N
46	107	2.6	285	9 HSNOS2E15	X85765 H. sapiens N
47	102	2.5	287	9 MMU31907	U31907 Macaca mula
48	99	2.4	490	9 HSNOS2E21	X85777 H. sapiens N
49	97	2.3	345	9 HSNOS2E21	X85779 H. sapiens N
50	96	2.3	918	9 HSNOS2E21	X85775 H. sapiens N
51	95	2.3	336	9 HSNOS2E20	AF077821 Canis fam
52	88	2.1	208	9 HSNOS2E3	X85778 H. sapiens N
53	88	2.1	283	9 S75615	AY027883 Equus cab
54	86	2.1	445	4 AF254445	AF254445 Ovis arie
55	85	2.1	289	4 HSNOS2E13	X85769 H. sapiens N
56	84	2.0	153351	9 AC015688	AC015688 Homo sapi
57	84	2.0	166750	2 AC068106	AC068106 Homo sapi
58	81	2.0	293	9 HSNOS2E19	X85775 H. sapiens N
59	77	1.9	4050	4 AF077821	AF077821 Canis fam
60	63	1.5	247	9 HSNOS2E24	X85778 H. sapiens N
61	62	1.5	290	9 HSNOS2E23	AY027883 Equus cab
62	61	1.5	3936	4 AY027883	AY027883 Equus cab
63	59	1.4	226	9 HSNOSX05	AF469048 Oryctolag
64	59	1.4	310	4 AF469048	AF469048 Oryctolag
65	59	1.4	474	4 AF329377	AF329377 Equus cab

Pred. No. is the number of results predicted by chance to have a

66	56	1.4	278	9	HSN052E4	X85762 H. sapiens N
67	56	1.4	1078	4	AF340236	AE340236 Bos tauru
68	55	1.3	303	9	HSN052E6	X85772 H. sapiens N
69	53	1.3	320	9	HSN05X10	U65698 Human Induc
70	53	1.3	64648	2	AC041002	AC041002 Homo sapi
71	53	1.3	126500	2	AC015885	AC015885 Homo sapi
72	53	1.3	146243	2	AC130293	AC130293 Homo sapi
73	53	1.3	158698	2	AC036181	AC036181 Homo sapi
74	53	1.3	170314	2	AC021317	AC021317 Homo sapi
75	53	1.3	172770	2	AC023133	AC023133 Homo sapi
76	53	1.3	173727	2	AC126327	AC126327 Homo sapi
77	53	1.3	173782	2	AC131056	AC131056 Homo sapi
78	53	1.3	173782	2	AC131056	AC131056 Homo sapi
79	53	1.3	173782	2	AC053481	AC053481 Homo sapi
80	53	1.3	208010	2	AC129927	AC129927 Homo sapi
81	52	1.3	332	4	CHU29085	U29085 Capra hircu
82	52	1.3	647	4	SSU59390	U59390 Sus scrofa
83	52	1.3	1191	9	HSU50398	U50398 Human ntfrl
84	52	1.3	3924	9	HSN05093	U85093 Oryctolagus
85	50	1.2	290	4	OC085093	AC107983 Homo sapi
86	50	1.2	130561	9	AC107983	AC090285 Homo sapi
87	50	1.2	137007	2	AC090285	AC073519 Homo sapi
88	50	1.2	162035	2	AC073519	AC023401 Homo sapi
89	50	1.2	169559	2	AC023401	AL353997 Homo sapi
90	50	1.2	175103	9	HS37N07	AC127538 Homo sapi
91	50	1.2	178078	2	AC127538	AC015818 Homo sapi
92	50	1.2	194822	2	AC015818	

ALIGNMENTS

RESULT 1
LOCUS 115516 4145 bp DNA linear PAT 02-APR-1996
DEFINITION Sequence 1 from patent US 5468630.
ACCESSION 115516
VERSION 115516.1 GI:1250424

KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 4145)
AUTHORS Billiar,T.R., Nussler,A.K., Geller,D.A. and Simmons,R.L.
TITLE cDNA clone for human inducible nitric oxide synthase and process
for preparing same
JOURNAL Patent: US 5468630-A 1 21-NOV-1995;
FEATURES Location/Qualifiers
source 1..4145
BASE COUNT 968 a 1203 c 1126 g 848 t

Query Match 100.0%; Score 4145; DB 6; Length 4145;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 4145; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CTGCTTAAATCTCTGGCCACCTTGATGAGGGGACTGGCAGTTCTAGACAGTCCG 60
DB 1 CTGCTTAAATCTCTGGCCACCTTGATGAGGGGACTGGCAGTTCTAGACAGTCCG 60
QY 61 AAGTTTCAGGACAGGCTCTCTGCTGTTGACGTCTTACCCGGGGAGGACATGC 120
DB 61 AAGTTTCAGGACAGGCTCTCTGCTGTTGACGTCTTACCCGGGGAGGACATGC 120
QY 121 AGCCAGCTGCAAGCCCACTGGAAGAACTGAGCTCAATCCAGATAAGTACATAA 180
DB 121 AGCCAGCTGCAAGCCCACTGGAAGAACTGAGCTCAATCCAGATAAGTACATAA 180
QY 121 AGCCAGCTGCAAGCCCACTGGAAGAACTGAGCTCAATCCAGATAAGTACATAA 180
DB 121 AGCCAGCTGCAAGCCCACTGGAAGAACTGAGCTCAATCCAGATAAGTACATAA 180
QY 181 GTGACCTGCTTGTAAAGCCATAGAGATGCGCTGCTTGGAAATTTCTGTTCAAGACA 240
DB 181 GTGACCTGCTTGTAAAGCCATAGAGATGCGCTGCTTGGAAATTTCTGTTCAAGACA 240

QY 241 AATTCCACAGTAGATGATGGGAAAAAGACATCAACAACATGTGAGAAAACCC 300
DB 241 AATTCCACAGTAGATGATGGGAAAAAGACATCAACAACATGTGAGAAAACCC 300
QY 301 CCGTGCCACCTCCAGTCCAGTACACAGAGATACCTTGAATCAACACTTCAGCAAC 360
DB 301 CCGTGCCACCTCCAGTCCAGTACACAGAGATACCTTGAATCAACACTTCAGCAAC 360
QY 361 AGCAGATGAGTCCCGCCAGCCCTGCTGGAGAGGGGAAAAGTCTCCAGATCTCTGG 420
DB 361 AGCAGATGAGTCCCGCCAGCCCTGCTGGAGAGGGGAAAAGTCTCCAGATCTCTGG 420
QY 421 TCAAGCTGAGATGACACCCATTTCTCCCGACGAGATGTAGATCAAAAATCTGGGCA 480
DB 421 TCAAGCTGAGATGACACCCATTTCTCCCGACGAGATGTAGATCAAAAATCTGGGCA 480
QY 481 GCGGGATGACTTTCCAGACACACTTACATTAAGCCAAAGGATTTTAACTTGAGGT 540
DB 481 GCGGGATGACTTTCCAGACACACTTACATTAAGCCAAAGGATTTTAACTTGAGGT 540
QY 541 CCAATCTGCTGGGCTGCTTATGACTCCCAAAAGTTTGACAGAGACCCAGGAGCA 600
DB 541 CCAATCTGCTGGGCTGCTTATGACTCCCAAAAGTTTGACAGAGACCCAGGAGCA 600
QY 601 AGCCTACCCCTCCAGATGAGCTTACCTCAAGCTATGCAATTTGTCAACCAATATTAG 660
DB 601 AGCCTACCCCTCCAGATGAGCTTACCTCAAGCTATGCAATTTGTCAACCAATATTAG 660
QY 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCTGGCCAGGAGTGAAGCGGTAAACAGG 720
DB 661 GCTCCTTCAAGAGGCAAAATAGAGAACATCTGGCCAGGAGTGAAGCGGTAAACAGG 720
QY 721 AGATGAGAAACAAGAGAACTTACCACTGACGGAGATGAGCTATCTTGCCACCAGC 780
DB 721 AGATGAGAAACAAGAGAACTTACCACTGACGGAGATGAGCTATCTTGCCACCAGC 780
QY 781 AGGCTGGCGCAATGCCCCAGCTGATGGAGAGATCAAGTGTCCAACTGAGAGTCT 840
DB 781 AGGCTGGCGCAATGCCCCAGCTGATGGAGAGATCAAGTGTCCAACTGAGAGTCT 840
QY 841 TCGATGCCCGCAGCTGTTCCACTGCGCGGAAAGTTTGAACACATCTGCAGACGCTGC 900
DB 841 TCGATGCCCGCAGCTGTTCCACTGCGCGGAAAGTTTGAACACATCTGCAGACGCTGC 900
QY 901 GTTACTCCACCAACATGGAACATCAGGTGCGCATACCTGCTCCCGAGGGAGTG 960
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QY 1201 AACATCCCAAAATACGATGTTTGGGAACTGAGACTAAAGTGTACGCGCTGAG 1260
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QY 1441 ACCAGGCTGTGTGATCAACATTCGTGTATCCATGTATTTGAGAGCAGATGGA 1500
Db 1441 ACCAGGCTGTGTGATCAACATTCGTGTATCCATGTATTTGAGAGCAGATGGA 1500
QY 1501 CCATCATGAGACACACCTGGGCTGCGAATCTTATGATGATGATGCAAGATGAATAC 1560
Db 1501 CCATCATGAGACACACCTGGGCTGCGAATCTTATGATGATGATGCAAGATGAATAC 1560
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QY 1681 AGGTAGAGGCTGGAACCCCATGTCTGGCAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
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Db 1801 CAATGGGCTCCCGAGTCAAGAGTCAACATCTCTTGTGACAGAGAGAGAGAGAGAGAG 1860
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Db 1861 CGCTGGCTGGGACCTGGGGGCTTATTCACCTGCTGCTTACCCCAAGGTTCTGCA 1920
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Db 1921 TGGATAGTACAGGCTGAGCTGTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
QY 1981 CGTTGGCAATGGAGAGTGGGCTGGCAATGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
Db 1981 CGTTGGCAATGGAGAGTGGGCTGGCAATGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
QY 2041 TGAAGAAGCTCAACAAATTCAGTACGCTGTGTGGGCTGGCTGGCAATGAGAG 2100
Db 2041 TGAAGAAGCTCAACAAATTCAGTACGCTGTGTGGGCTGGCTGGCAATGAGAG 2100
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Db 2161 AGCTACCCCGATGGAG 2220
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QY 2461 CCATCTGTGTGAACTCTCTGTGAGATGGCCCAAGGCTGAACTACTCTCCGGGGAGC 2520
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Db 2581 TGGATGGGCTTGGCCAG 2640
QY 2641 ACTGGGTGAGTACAG 2700
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 REFERENCE 1 (bases 1 to 4145)
 AUTHORS Geller, D.A., Lowenstein, C.J., Shapito, R.A., Nussler, A.K., Di
 Silvio, M., Wang, S.C., Nakayama, D.K., Simmons, R.L., Snyder, S.H. and

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 VERSION AY046510.1 GI:15636799
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 ORGANISM Adenoviral expression vectors.
 REFERENCE
 AUTHORS Shapiro, R., Gao, W., Tzeng, E., Robbins, P. D., Timoty, B. R. and Gambotto, A.
 TITLE Construction and characterization of a clinical grade adenoviral vector encoding the human hINOS cDNA
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 35764)
 AUTHORS Shapiro, R., Gao, W., Tzeng, E., Robbins, P. D., Timoty, B. R. and Gambotto, A.
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 1 (bases 1 to 4164)
 Charles, I. G., Palmer, R. M., Hickey, M. S., Bayliss, M. T., Chubb, A. P.,
 Hall, V. S., Moss, D. W. and Moncada, S.
 Cloning, characterization, and expression of a cDNA encoding an
 inducible nitric oxide synthase from the human chondrocyte
 Proc. Natl. Acad. Sci. U.S.A. 90 (23), 11419-11423 (1993)
 7504305
 JOURNAL PUBMED
 MEDLINE
 PUBLISHED
 2 (bases 1 to 4164)
 Charles, I.
 Direct Submission
 JOURNAL TITLE
 Submitted (23-Apr-1993) I. Charles, Wellcome Research Laboratories,
 Bldg. 113, Dept. of Cerk Biology, Langley Park, Beckenham, Kent, BR3
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Db	1580	GGTCCCGTGGGGGCTGCCCCGCGCAACTGGAATTTGGCTGGTCCCTCCCATATGCTGGAGCA	1639
Qy	1621	TCACCCCGGTGTTACACAGAGATGCGAATCACTACGTCGTGCCCTTTCACACTATC	1680
Db	1640	TCACCCCGGTGTTACACAGAGATGCTGAATCACTACGTCGTGCCCTTTCACACTATC	1699
Qy	1681	AGGTAGAGGCGCTGGAAAAACCCATGTCTGGCAGAGAGAAACCGGAGACCCAAAGAAAG	1740
Db	1700	AGGTAGAGGCGCTGGAAAAACCCATGTCTGGCAGAGAGAAACCGGAGACCCAAAGAAAG	1759

Qy	1741	AGATTCATTGAAAGCTTGTGCTCAAAAGCTGTCTCTTGGCTGTGATCTGATGCGCAAGA	1800
Db	1760	AGATTTCATTGAAAGCTTGTGCTCAAAAGCTGTCTTGTGCTGTATCTATGCGCAAGA	1819
Qy	1801	CAATGGCGTCCGACAGTCAGAGTCACCATCTCTTTGGCACACAGAGAGAAATTCAGAGG	1860
Db	1820	CAATGGCGTCCGAGTCAAGTACCATCTCTTTGGCACAGAGAGAAATTCAGAGG	1879
Qy	1861	CGTTGGCCCTGGGACCTGGGGGCTTATTAGCTGTGCTTCAACCCCAAGGTTGTGCA	1920
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Qy	1921	TGGATTAAGTACAGGCTAGCTGTGCTTGAGAGAGAACGGCTCTGTGTGGTGCACAGTA	1980
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Qy	1981	CGTTTGGCAATGAGAGACTGCCCTTGGCAATGAGAGAGAAATCGCTCTTCAATGC	2040
Db	2000	CGTTTGGCAATGAGAGACTGCCCTTGGCAATGAGAGAGAAATCGCTCTTCAATGC	2059
Qy	2041	TGAAAGACCTCAACACAAATTCAGGACAGCTGTGTTTGGCTCGGGCTCCAGCATGACC	2100
Db	2060	TGAAAGACCTCAACACAAATTCAGGACAGCTGTGTTTGGCTCGGGCTCCAGCATGACC	2119
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Db	2120	CTCGGTTTCTGGCGCTTTTGCTCATGACATTGATCAGAACCTGTCCACTGGGGGCTCTC	2179
Qy	2161	ACCTCACCCCGATGGGAAAGGGGATGAGTCACTGATGGGACAGAGACCTTTCGCGACGT	2220
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Qy	2221	GGGCGCGTCAAAACCTTCAGGACAGCCTGTGAGACGTTTATGTCTCGAGGCAAAACAGACA	2280
Db	2240	GGGCGCGTCAAAACCTTCAGGACAGCCTGTGAGACGTTTATGTCTCGAGGCAAAACAGACA	2299
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Qy	2341	TGCAGAGCTACAGGCTTTGGACCTCAGCAAAAGCCCTCAGCAGCATGATGCAAGAAG	2400
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Qy	2461	CCATCCGTGTGAACCTCTCTGTAGAGATGGCCAAAGGCTCGAATCTACCTGCCGGGGAGC	2520
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Qy	2761	AAGAGCCTGAGAGACAGAGGCTGAGGCGCTGTGTCCAGCCCTCAGAGTACAGCAATGGA	2820
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ACCESSION AR124185
VERSION AR124185.1 GI:14109546
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 4062)
AUTHORS Thigpen, A., Homeliet, H.-E., Newgard, C.B., Unger, R.H.,
Shimabukuro, M., Chen, G., Rhodes, C.J., Hugl, S.R. and Cousin, S.
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JOURNAL Patent: US 6171856-A 11 09-JAN-2001;
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BASE COUNT 966 a 1178 c 1099 g 819 t
ORIGIN

Query Match 81.6%; Score 3381; DB 6; Length 4062;
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QY	2802	TCAGAGTACAGAGAGTGAAGTTTCACCAACAGAGCCCAATTCCTGAGAGTGTCTAGAGAG	2861
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QY	2862	TTCCCGTCCCTGGGGTGTCTGCTGCTTCCCTGCTTTCCTGAGCTCCCATTTCTGAAGCCC	2921
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QY	2922	AGGTTCTACTCCATCAGCTCTCCCGGATCACAGCCACAGAGATCCACTGACCTGTG	2981
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QY	2982	GGCGGTGCTACCTACCAACCCGAGATGGCCAGGGTCCCTGACACAGGGTGTCTGACG	3041
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QY	3402	AGCCAGGTCCTGCTGCTGCTCACAAGAGAGCCACCTCTATGTTTGGGGGATGTG	3461
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QY	3522	AATGAGAGAGAGTGCAGAGATTTTCTTCAAGAGCCAGAGAGCTTATTCACAGGAA	3581
Db	3421	AATGAGAGAGAGTGCAGAGATTTTCTTCAAGAGCCAGAGAGCTTATTCACAGGAA	3480
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Db	3481	GATATCTTGGTGTGATTTCTTACAGAGCGAAGAGAGAGAGGTCGGTGCAGCCC	3540
QY	3642	AGCAGCTGGAGATGTCAGAGGCTCTGAGGCTCAACAGAGAGGTTAAAGTGCCTGAC	3701
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QY	3702	GAACCTAAGAGTGAAGCAGCTCTGATATCTGAGGTTCACAGGCTGGGAGATGGAG	3761
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QY	3762	GAAGAGTATATCCCCAGAGCTCAAGTCTTATTTCTCAACGTTTCCCTCATCAGCCCT	3821
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QY	4002	TGTATATTTAATGCTCTTGTGATACAGTTATTTATGCTCTGATTTAAAAAATAACAC	4061
Db	3901	TGTATATTTAATGCTCTTGTGATACAGTTATTTATGCTCTGATTTAAAAAATAACAC	3960
QY	4062	CAGCTGTCCCATGGCCACTGGGCTCCCTGATATGATTCCTTGAAGAGATATTTA	4121
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 REFERENCE
 1 (bases 1 to 4150)
 Kellier, E.T., Gravenstein, S. and Hall, D.M.
 Treatment of viral influenza with antisense oligonucleotides
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LOCUS Homo sapiens inducible nitric oxide synthase (NOS) mRNA, complete cds.

DEFINITION AF068236

ACCESSION AF068236

VERSION AF068236.1 GI:3192916

KEYWORDS

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 4150)

AUTHORS Luss, H., Li, R.-K., Shapiro, R.A., Tseng, E., McGowan, F.X., Yoneyama, T., Hatakeyama, K., Geller, D.A., Mickle, D.A.G., Simmons, R.L. and Billiar, T.R.

TITLE Dedifferentiated human ventricular cardiac myocytes express inducible nitric oxide synthase mRNA but not protein in response to IL-1, TNF, IFN-gamma, and LPS

JOURNAL J. Mol. Cell. Cardiol. 29 (4), 1153-1165 (1997)

PubMed 97304504

9160867

2 (bases 1 to 4150)

Luss, H., Li, R.-K., Shapiro, R.A., Tseng, E., McGowan, F.X., Yoneyama, T., Hatakeyama, K., Geller, D.A., Mickle, D.A.G., Simmons, R.L. and Billiar, T.R.

Direct Submission

Submitted (26-MAY-1998) Pharmacology, Westf. Wilhelms-Univ., Domsagstr. 12, Munster D-48149, Germany

FEATURES

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 REFERENCE
 1 (bases 1 to 3946)
 Kellier, E.T., Gravenstein, S. and Hall, D.M.
 Treatment of viral influenza with antisense oligonucleotides
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 Guo,F.H., De Reeve,H.R., Rice,T.W., Stuehr,D.J., Thunnissen,F.B.
 and Erzurum,S.C.
 Continuous nitric oxide synthesis by inducible nitric oxide
 synthase in normal human airway epithelium in vivo
 Proc. Natl. Acad. Sci. U.S.A. 92 (17), 7809-7813 (1995)
 JOURNAL MEDLINE 7544004
 PUBMED 2 (bases 1 to 3946)
 REFERENCE Erzurum,S.C.
 Direct Submission
 Submitted (20-JAN-1995) Serpil C. Erzurum, Pulmonary & Critical
 Title Care Medicine, Cleveland Clinic Foundation, 9500 Euclid Avenue,
 Journal Cleveland, OH 44195, USA
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 VERSION D26525.1
 KEYWORDS inducible type of nitric oxide synthase; cytokine-related.
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 REFERENCE 1 (bases 1 to 3963)
 AUTHORS Hokari,A., Zeniya,M. and Esumi,H.
 TITLE Cloning and functional expression of human inducible nitric oxide synthase (NOS) cDNA from a glioblastoma cell line A-172
 JOURNAL J Biochem. 116 (3), 575-581 (1994)
 MEDLINE 95155267
 REFERENCE 2 (bases 1 to 3963)
 AUTHORS Hokari,A.
 TITLE Direct Submission
 JOURNAL Submitted (18-JAN-1994) Atsushi Hokari, Jikei University School of Medicine, Tokyo, Department of Internal medicine, Division of Gastroenterology and Hepatology, 3-25-8 Nishishinbashi, Minato, Tokyo 105-0003, Japan (E-mail:hokari_aj@jikei.ac.jp, Tel:03-3433-1111, Fax:03-3435-0569)
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Db	721	ACAATGCAACATCAGTGGCCATCACCGTGTCCCGAGGAGTGTATGCAAGCAG	780
QY	973	ACTTCCGGGTGTGGAATGCTCAGCTCATCTGCTATGCTGGCTACGAGATGCCAGATGCA	1032
Db	781	ACTTCCGGGTGTGGAATGCTCAGCTCATCTGCTATGCTGGCTACGAGATGCCAGATGCA	840
QY	1033	GCATCAGAGGAGACCTGCGCAAGTGAATTCATCAGCTGTCATGCAACCTGGGCTGGA	1092
Db	841	GCATCAGAGGAGACCTGCGCAAGTGAATTCATCAGCTGTCATGCAACCTGGGCTGGA	900
QY	1093	AGCCCAAGTACGCGCGCTTCGATGTGTCGCCCTGCTCGAGGCAATGGCGCTGAC	1152
Db	901	AGCCCAAGTACGCGCGCTTCGATGTGTCGCCCTGCTCGAGGCAATGGCGCTGAC	960
QY	1153	CTGAGCTCTTGAATTCACCTGACCTTGTGCTTGAAGTGGGCAATGCCAAT	1212
Db	961	CTGAGCTCTTGAATTCACCTGACCTTGTGCTTGAAGTGGGCAATGCCAAT	1020
QY	1213	ACGAGTGGTTTGGGAACTGAGAGTAAAGTGGTACGCGCTGCACTGGCCCAACATGC	1272
Db	1021	ACGAGTGGTTTGGGAACTGAGAGTAAAGTGGTACGCGCTGCACTGGCCCAACATGC	1080
QY	1273	TGCTTGAAGTGGGCGGCTGAGAGTCCCAAGGTCGCCCTTCAATGCTGTGATGAGCA	1332
Db	1081	TGCTTGAAGTGGGCGGCTGAGAGTCCCAAGGTCGCCCTTCAATGCTGTGATGAGCA	1140
QY	1333	CAGAGATGAGATCGGAGACTTGTGACGTGACAGCGCTACACATCCTGGAGAGAAATG	1392
Db	1141	CAGAGATGAGATCGGAGACTTGTGACGTGACAGCGCTACACATCCTGGAGAGAAATG	1200
QY	1393	GCAGAGAAATGGGCTGGAAGACGACAAAGCTGCGCTGCTGTGAAAAGACAGGCTGCG	1452
Db	1201	GCAGAGAAATGGGCTGGAAGACGACAAAGCTGCGCTGCTGTGAAAAGACAGGCTGCG	1260
QY	1453	TTGAGATCAACATTTGCTGTATCCATGATTTTGAAGACGAATGTACCATCATGAGAC	1512
Db	1261	TTGAGATCAACATTTGCTGTATCCATGATTTTGAAGACGAATGTACCATCATGAGAC	1320
QY	1513	ACCACTGGGCTGCAAGATCTTCAATGAAGTACATGCAAGATGAAATACCGGATCCCGTGG	1572
Db	1321	ACCACTGGGCTGCAAGATCTTCAATGAAGTACATGCAAGATGAAATACCGGATCCCGTGG	1380
QY	1573	GCTGCGCGGAGATGGAATTTGGCTGCTCCCTCCCATGCTGGAGAGATACCCCGGTG	1632
Db	1381	GCTGCGCGGAGATGGAATTTGGCTGCTCCCTCCCATGCTGGAGAGATACCCCGGTG	1440
QY	1633	TTTACAGAGAGATGCTAAGTACGCTCTGCTCCCTTCTCACTACTATCAGGTGAGAGGCT	1692
Db	1441	TTTACAGAGAGATGCTAAGTACGCTCTGCTCCCTTCTCACTACTATCAGGTGAGAGGCT	1500
QY	1693	GGAAAGCCCATGCTGTCAGAGAGAGAGAGAGAGAGAGAGAGAGATTCATTGA	1752
Db	1501	GGAAAGCCCATGCTGTCAGAGAGAGAGAGAGAGAGAGAGAGAGATTCATTGA	1560
QY	1753	AAGTCTTGATCAAAAGCTGCTCTTGTGCTGTATGCTGATGCGCAAGAGAGAGAGCTGCC	1812
Db	1561	AAGTCTTGATCAAAAGCTGCTCTTGTGCTGTATGCTGATGCGCAAGAGAGAGAGCTGCC	1620

QY 1813 GAGTCAGAGTCACCATCTCTTTGCGACAGACAGAAAAATCAGAGGCGCTGGCCCTGGG 1872
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Db 1621 GAGTCAGAGTCACCATCTCTTTGCGACAGACAGAAAAATCAGAGGCGCTGGCCCTGGG 1680
QY 1873 ACCTGGGGGCGCTTATTCAGCTGTGCTTCAACCCCAAGGTTGTGCTGATGATAGTACA 1932
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Db 1681 ACCTGGGGGCGCTTATTCAGCTGTGCTTCAACCCCAAGGTTGTGCTGATGATAGTACA 1740
QY 1933 GCGTCAGCTGCGCTGAGAGAGAGAGCGCTGCTGTGTGTGTGCTGACAGTACGTTGGCAATG 1992
|||||
Db 1741 GCGTCAGCTGCGCTGAGAGAGAGAGCGCTGCTGTGTGTGTGCTGACAGTACGTTGGCAATG 1800
QY 1993 GAGACTGCGCGCTGGCAATGAGAGAACTGAAGAAATCGCTCTTCATGCTGAAGAAGCTCA 2052
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Db 1801 GAGACTGCGCGCTGGCAATGAGAGAACTGAAGAAATCGCTCTTCATGCTGAAGAAGCTCA 1860
QY 2053 ACACAAATTCAGATACGCTGTGTTGGCTTGGCTTCCAGCATGTACCTTGCGTTCTGCG 2112
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Db 1861 ACACAAATTCAGATACGCTGTGTTGGCTTGGCTTCCAGCATGTACCTTGCGTTCTGCG 1920
QY 2113 CCTTTGCTATGACATGATTCAGAAAGCTGTCCACCTGGGGGCGCTGACGTCACCCGA 2172
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Db 1921 CCTTTGCTATGACATGATTCAGAAAGCTGTCCACCTGGGGGCGCTGACGTCACCCGA 1980
QY 2173 TGGAGAAAGGGGATGAGCTCACTGAGGAGAGAGAGCGCTTCCGACAGCTGGGCGCTGCAAA 2232
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Db 1981 TGGAGAAAGGGGATGAGCTCACTGAGGAGAGAGAGCGCTTCCGACAGCTGGGCGCTGCAAA 2040
QY 2233 CCTTCAAGGAGCGCTGTGAGAGCTTTGATGTCCGAGGCAAAAGACATTCAGATCCCA 2292
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Db 2041 CCTTCAAGGAGCGCTGTGAGAGCTTTGATGTCCGAGGCAAAAGACATTCAGATCCCA 2100
QY 2293 AGCTCAACCTCCATGTGACCTGGAGCCGACACCTACAGAGCTGCTGACGACTAC 2352
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Db 2101 AGCTCAACCTCCATGTGACCTGGAGCCGACACCTACAGAGCTGCTGACGACTAC 2160
QY 2353 AGCTTGTGACCTCAGCAAAAGCCCTCAGCAGCATGCTCCAGAAAGCTGTTCCACATGA 2412
|||||
Db 2161 AGCTTGTGACCTCAGCAAAAGCCCTCAGCAGCATGCTCCAGAAAGCTGTTCCACATGA 2220
QY 2413 GCGTCAATCTGCGCAGAACTCTCAAAAGTCCGATCCAGCGCTGCGACATCCCTGGTGG 2472
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Db 2221 GCGTCAATCTGCGCAGAACTCTCAAAAGTCCGATCCAGCGCTGCGACATCCCTGGTGG 2280
QY 2473 AACTCTCTGTGAGAGATGAGCAAGGCTGAACTACCTGCGGGGAGACACCTTGGGGTT 2532
|||||
Db 2281 AACTCTCTGTGAGAGATGAGCAAGGCTGAACTACCTGCGGGGAGACACCTTGGGGTT 2340
QY 2533 GCGCAGGACACAGCGCGCGCTGTCCAAAGCATCTGAGAGCGAGTGGTGGATGGCGCCA 2592
|||||
Db 2341 GCGCAGGACACAGCGCGCGCTGTCCAAAGCATCTGAGAGCGAGTGGTGGATGGCGCCA 2400
QY 2593 CACCCCAACAGACAGTGCCTGGAGAGACTGATGAGATGAGTGGCAGCTACTGGTCAAGT 2652
|||||
Db 2401 CACCCCAACAGACAGTGCCTGGAGAGACTGATGAGATGAGTGGCAGCTACTGGTCAAGT 2460
QY 2653 ACAAGAGCTGCGCGCTGTCTACTACAGCAAGCGCTCAGCTACTCTCCCGGAATACCA 2712
|||||
Db 2461 ACAAGAGCTGCGCGCTGTCTACTACAGCAAGCGCTCAGCTACTCTCCCGGAATACCA 2520
QY 2713 CACCCCAACAGCGAGTCTGTCTCCAAAAGCTGGGCCAGTGGCCACAGAGAGACTGAGA 2772
|||||
Db 2521 CACCCCAACAGCGAGTCTGTCTCCAAAAGCTGGGCCAGTGGCCACAGAGAGACTGAGA 2580
QY 2773 GACAGAGCTGAGAGCGCTGTGCCAGCCCTCAGAGTACAGCAAGTGAAGTTCACACACA 2832
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Db 2581 GACAGAGCTGAGAGCGCTGTGCCAGCCCTCAGAGTACAGCAAGTGAAGTTCACACACA 2640
QY 2833 GCGCCCAATCTCTGAGAGTGTAGAGAGATTCCTGCTGGGGGTGCTGCTGGCTTCC 2892
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Db 2641 GCGCCCAATCTCTGAGAGTGTAGAGAGATTCCTGCTGGGGGTGCTGCTGGCTTCC 2700
QY 2893 TGCTTCCACAGCTCCCATCTCTGAAGCCAGGTTCTACTCCATAGCTCTCCCGGGATC 2952

Db 2701 TGCTTCCACAGCTCCCATCTCTGAAGCCAGGTTCTACTCCATCAGCTCTCCCGGGATC 2760
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QY 2953 ACACGCCACAGAGATTCACCTACTGTGGCGCTGGTCAACATCAACACACCGAGATGGCC 3012
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Db 2761 ACACGCCACAGAGATTCACCTACTGTGGCGCTGGTCAACATCAACACACCGAGATGGCC 2820
QY 3013 AGGATCCCTGACACAGGATGTCTGACAGCATGCTGCTCAACAGCTGAAGCCCAAGACC 3072
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Db 2821 AGGATCCCTGACACAGGATGTCTGACAGCATGCTGCTCAACAGCTGAAGCCCAAGACC 2880
QY 3073 CAGTGCCTCTTGTGTGCGAATGCCAGCGCTTCCACCTCCCGGAGATTCCTCCATC 3132
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Db 2881 CAGTGCCTCTTGTGTGCGAATGCCAGCGCTTCCACCTCCCGGAGATTCCTCCATC 2940
QY 3133 CTTCGATCTCATGCGGCGCTGGCACAGAGCATGCTGCGCTTCCGACATTTCTGGCAGCAAC 3192
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Db 2941 CTTCGATCTCATGCGGCGCTGGCACAGAGCATGCTGCGCTTCCGACATTTCTGGCAGCAAC 3000
QY 3193 GCGTCATGACTCCACACAGGAGTGTGGGAGGCGCGCATGACCTTGTGTGGGT 3252
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Db 3001 GCGTCATGACTCCACACAGGAGTGTGGGAGGCGCGCATGACCTTGTGTGGGT 3060
QY 3253 GCGCGCGCCAGATGAGAGACCATCTACAGAGAGATGCTGAGATGGCCAGAGAG 3312
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Db 3061 GCGCGCGCCAGATGAGAGACCATCTACAGAGAGATGCTGAGATGGCCAGAGAG 3120
QY 3313 GGGTGTGATGCGGTGCGACACAGACCTATTCCCGCTGCTGGCAAGCCCAAGGTATG 3372
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Db 3121 GGGTGTGATGCGGTGCGACACAGCTATTCCCGCTGCTGGCAAGCCCAAGGTATG 3180
QY 3373 TTCAAGGATCTCTCGCGCAGAGTGTGCGCGACAGGATGCTGCTGCTGCAAGAGC 3432
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Db 3181 TTCAAGGATCTCTCGCGCAGAGTGTGCGCGACAGGATGCTGCTGCTGCAAGAGC 3240
QY 3433 CAGGCACTCTATGTTTGGCGGATGTGCGCATGCGCCGCGGAGAGTGGCCACACCTGA 3492
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Db 3241 CAGGCACTCTATGTTTGGCGGATGTGCGCATGCGCCGCGGAGAGTGGCCACACCTGA 3300
QY 3493 AGCAGCTGTGGTGCACAGCTGAATTTGAATGAGAGACAGCTGAGAGACTATTTCTTC 3552
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Db 3301 AGCAGCTGTGGTGCACAGCTGAATTTGAATGAGAGACAGCTGAGAGACTATTTCTTC 3360
QY 3553 AGCTCAAGGACAGAGGCTGATCAGCAAGATATCTTGGGCTGTATTTCTTACAGAG 3612
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Db 3361 AGCTCAAGGACAGAGGCTGATCAGCAAGATATCTTGGGCTGTATTTCTTACAGAG 3420
QY 3613 CGAAGAGACAGAGTGGGTGCGAGCCAGCAGCTGAGATGTACAGCTCTGAGGCG 3672
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Db 3421 CGAAGAGACAGAGTGGGTGCGAGCCAGCAGCTGAGATGTACAGCTCTGAGGCG 3480
QY 3673 CTACAGAGAGGTTAAAGCTGCGGCGACAGAACTTAAGATGAGAGCGCTGCTCATTTAT 3732
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Db 3481 CTACAGAGAGGTTAAAGCTGCGGCGACAGAACTTAAGATGAGAGCGCTGCTCATTTAT 3540
QY 3733 CTGAGAGTCAAGGCGCTGGGAGATGAGAGAAAGTATATCCCCAGCTCAAGCTTAT 3792
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Db 3541 CTGAGAGTCAAGGCGCTGGGAGATGAGAGAAAGTATATCCCCAGCTCAAGCTTAT 3600
QY 3793 TTCTCTAACGTTGCTCCCATATCAAGCCCTTTAAGACTCTTAACAAGTATGAGACCCG 3852
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|||||
Db 3661 ATTGATGAGAGCTGCTCTCTCAAACTGGGCGCTGCTGCTTGGAGACAAATTT 3720
QY 3913 AAATGCGAGGCTGCGAGTGTGGAAGATGAAGTGAAGTGTGCTGAGTGCACACTTAA 3972
|||||
Db 3721 AAATGCGAGGCTGCGAGTGTGGAAGATGAAGTGAAGTGTGCTGAGTGCACACTTAA 3780
QY 3973 GTGACCAAGAGATGCTATGACACACTGTGTATTTAAAGTGGCTTGTGATCAATTT 4032
|||||

QY	191	TTGTAAAGCCATGAGATGAGCCGTGCTCTTGGAATTTCTGTTCAAGACCAATTCACCA	230
Db	61	TTGTAAAGCCATGAGATGAGCCGTGCTCTTGGAATTTCTGTTCAAGACCAATTCACCA	120
QY	251	GTTTCATGATGATGGGAAAAAGACATCAACAACATGTGAGAGAAAGCCCCCTGTGCAC	310
Db	121	GTATGCATATGATGGGAAAAAGACATCAACAACATGTGAGAGAAAGCCCCCTGTGCAC	180
QY	311	CTTCAGTCCAGTGAACACAGAGATGACCTTCAGTATCACAACTCAAGCAACGACGAATGA	370
Db	181	CTTCAGTCCAGTGAACACAGAGATGACCTTCAGTATCACAACTCAAGCAACGACGAATGA	240
QY	371	GTCCCGCAGCCCCCTGTGAGACGGGAAAGACTCTCAAAATCTCTGTGCAAGCTGGA	430
Db	241	GTCCCGCAGCCCCCTGTGAGACGGGAAAGACTCTCAAAATCTCTGTGCAAGCTGGA	300
QY	431	TGCAACCCCATGTCTCTCCGCCAGCATGTGAGATCAAAAATCTGGGCGCAGCGGATGAC	490
Db	301	TGCAACCCCATGTCTCTCCGCCAGCATGTGAGATCAAAAATCTGGGCGCAGCGGATGAC	360
QY	491	TTTCCAGACACACTTCAACCATTAAGGCCAAGGGATTTTTACCTTGGCAGGTCCAAATCTG	550
Db	361	TTTCCAGACACACTTCAACCATTAAGGCCAAGGGATTTTTACCTTGGCAGGTCCAAATCTG	420
QY	551	CTGTGGGTCCATTATGACTCCCAAAAGTTTGACCAAGAGACCAGGACACAGCTACCC	610
Db	421	CTGTGGGTCCATTATGACTCCCAAAAGTTTGACCAAGAGACCAGGACACAGCTACCC	480
QY	611	TTCCAATGAGCTTCTTACCTCAAGCTATGCGATTGTTGTCAACCAATATTAGCGCTCTTCAA	670
Db	481	TTCCAATGAGCTTCTTACCTCAAGCTATGCGATTGTTGTCAACCAATATTAGCGCTCTTCAA	540
QY	671	AGAGCCAAATAATAGAGAACATCTGGCCAGGGTGAAGCGGTAAACAAAGAGATAGAAAC	730
Db	541	AGAGCCAAATAATAGAGAACATCTGGCCAGGGTGAAGCGGTAAACAAAGAGATAGAAAC	600
QY	731	AACAGGAACCTACCAACCTGACGGGAGATGAGCTATTTTGCCACCAAGCAGGCTGGCG	790
Db	601	AACAGGAACCTACCAACCTGACGGGAGATGAGCTATTTTGCCACCAAGCAGGCTGGCG	660
QY	791	CAATGCCCCACAGCTGCAATTTGGAGAGATTCACAGTGGTCCAACTGCAGTCTGTGATGCCG	850
Db	661	CAATGCCCCACAGCTGCAATTTGGAGAGATTCACAGTGGTCCAACTGCAGTCTGTGATGCCG	720
QY	851	CAGCGTTCCACTGCCCCGGGAAATGTTTGAACACATCTGCACGACACGCTCGTTACTCCAC	910
Db	721	CAGCGTTCCACTGCCCCGGGAAATGTTTGAACACATCTGCACGACACGCTCGTTACTCCAC	780
QY	911	CAACATATGGCAACATTCAGAGTGGCCATCACCGTGTTCGCCACGCGGAGATGGGCAAGA	970
Db	781	CAACATATGGCAACATTCAGAGTGGCCATCACCGTGTTCGCCACGCGGAGATGGGCAAGA	840
QY	971	CGACTTCGGGTTGTGGAATGCTCAGCTCATCGGCTATGTGGGTACAGATGCCAGATGG	1030
Db	841	CGACTTCGGGTTGTGGAATGCTCAGCTCATCGGCTATGTGGGTACAGATGCCAGATGG	900
QY	1031	CAGCATCAGAGGGAGCCCTGCCAACGCGGAATTCACTCAGCTGTGATGAGACTGGGCTG	1090
Db	901	CAGCATCAGAGGGAGCCCTGCCAACGCGGAATTCACTCAGCTGTGATGAGACTGGGCTG	960
QY	1091	GAAAGCCCAAGTACGGCCGCTTCGATGTGTCGCCCTGATCTGCAAGGCCAATGGGCGCTGA	1150
Db	961	GAAAGCCCAAGTACGGCCGCTTCGATGTGTCGCCCTGATCTGCAAGGCCAATGGGCGCTGA	1020
QY	1151	CCCTGACCTCTGTGGAATTCACCTCAGCTACCTGTGCTTGAAGTGGCCATGGAATCCCAA	1210
Db	1021	CCCTGACCTCTGTGGAATTCACCTCAGCTACCTGTGCTTGAAGTGGCCATGGAATCCCAA	1080
QY	1211	ATACGAGTGTGTTTGGGAACTGAGCTTAAAGTGTACGCCCTGCTGAGTGGCCAACT	1270
Db	1081	ATACGAGTGTGTTTGGGAACTGAGCTTAAAGTGTACGCCCTGCTGAGTGGCCAACT	1140
QY	1271	GTGTGCTTGAAGTGGGGGCTGTGAGATTTCCACAGGTGCCCCCTTCAATGCTGTATCATGG	1330

Db	1141	GTGCTTGAAGTGGGGGGGCTTGAGATCCCAAGGTGCCCTTAATGTGCTGGATACATGGG	1200
Oy	1331	CAAGAGATCGGAGTCCGGAGACTTCTGTAGCGTCCAGCGTACACATCCTGGAGAAST	1390
Db	1201	CACAGAGATCGAGTCCGGAGACTTCTGTAGCGTCCAGCGTACACATCCTGGAGAAST	1260
Oy	1391	GGGCGAGAAATGGGCTTGGAAGCCACAAACCTGGCTGGCTGGAAAGAACAGGCTGT	1450
Db	1261	GGGCGAGAAATGGGCTTGGAAGCCACAAACCTGGCTGGCTGGAAAGAACAGGCTGT	1320
Oy	1451	CGTTGATGAATCATTTGCTGTATCCATAGTTTTCAGAGAGAAATGTGACATCATGGA	1510
Db	1321	CGTTGATGAATCATTTGCTGTCTCCATAGTTTTCAGAGAGAAATGTGACATCATGGA	1380
Oy	1511	CCACCACCTGGCTGCGAATTCCTTATAGATGACATGAGAAATGAATACCGGTCGGTGG	1570
Db	1381	CCACCACCTGGCTGCGAATTCCTTATAGATGACATGAGAAATGAATACCGGTCGGTGG	1440
Oy	1571	GGGCTGGCCGGAGACGATGATTTGGCTGCTCCCATGTGTGGAGATCAACCCCGT	1630
Db	1441	GGGCTGGCCGGAGACGATGATTTGGCTGCTCCCATGTGTGGAGATCAACCCCGT	1500
Oy	1631	GTTCACCGAGAGATGCTGAATGCTGCTGTCCCTTTCTACTACTATAGSTAAAGGC	1690
Db	1501	GTTCACCGAGAGATGCTGAATGCTGCTGTCCCTTTCTACTACTATAGSTAAAGGC	1560
Oy	1691	CTGGAATAACCATGCTGGAGAGACAGAAAGGAGACCACAGAGAAAGAGATCCATT	1750
Db	1561	CTGGAATAACCATGCTGGAGAGACAGAAAGGAGACCACAGAGAAAGAGATCCATT	1620
Oy	1751	GAAGATCTTGCTAAAGCTGTGCTCTTTGCTGTATGCTGATGCGCAAGACATGGCGTC	1810
Db	1621	GAAGATCTTGCTAAAGCTGTGCTCTTTGCTGTATGCTGATGCGCAAGACATGGCGTC	1680
Oy	1811	CCGAGTCAGAGTACCACTCTCTTTGCGACAGACAGAAATACAGAGCGCGTGGCTG	1870
Db	1681	CCGAGTCAGAGTACCACTCTCTTTGCGACAGACAGAAATACAGAGCGCGTGGCTG	1740
Oy	1871	GGACCTGGGGGCTTATTTAGCTGTGCTCTTCAACCCCAAGTTGTTCGATGATAAGTA	1930
Db	1741	GGACCTGGGGGCTTATTTAGCTGTGCTCTTCAACCCCAAGTTGTTCGATGATAAGTA	1800
Oy	1931	CAGGCTAGCTGCTCGAGAGAGAAAGGCTGCTTGGTGAGTGCACATGACTTTGGCAA	1990
Db	1801	CAGGCTAGCTGCTCGAGAGAGAAAGGCTGCTTGGTGAGTGCACATGACTTTGGCAA	1860
Oy	1991	TGAGACATGCCCTGGCAATGGAGAGAAAGTGAAGAAATGCTCTTCATGCTGAAGAAGT	2050
Db	1861	TGAGACATGCCCTGGCAATGGAGAGAAAGTGAAGAAATGCTCTTCATGCTGAAGAAGT	1920
Oy	2051	CAACACAATTCAGATGAGCTGTGTTTGGGCTTCGGCTCCACAGATGTACCTCGGTTCTG	2110
Db	1921	CAACACAATTCAGATGAGCTGTGTTTGGGCTTCGGCTCCACAGATGTACCTCGGTTCTG	1980
Oy	2111	CGGCTTGTGATGATGATTTGATTCGAAGCTGTCCCACTGGGGGCTCTCAGCTACCCCC	2170
Db	1981	CGGCTTGTGATGATTTGATTTGATTCGAAGCTGTCCCACTGGGGGCTCTCAGCTACCCCC	2040
Oy	2171	GATGGAGAAAGGGAATGAGCTCACTGGGGCAGAGAGAGCGCTTCCGAGCTGGGCCGTGCA	2230
Db	2041	GATGGAGAAAGGGAATGAGCTCACTGGGGCAGAGAGAGCGCTTCCGAGCTGGGCCGTGCA	2100
Oy	2231	AACCTTCAAGGAGAGCTGTGAGAGAGTTTATGTGCCAGGCAAAAGACATTCAGATGCC	2290
Db	2101	AACCTTCAAGGAGAGCTGTGAGAGAGTTTATGTGCCAGGCAAAAGACATTCAGATGCC	2160
Oy	2291	CAGGCTTACACTCTCAATGTGACTGGAGCCGCAACCACTACAGGCTGTGCGAGACTC	2350
Db	2161	CAGGCTTACACTCTCAATGTGACTGGAGCCGCAACCACTACAGGCTGTGCGAGACTC	2220
Oy	2351	ACAGCTTTTGAAGCTGACAAAGCCCTGACAGCATGATGCCAAGACGTGTACCAT	2410

Db	2221	ACAGCCCTTTGACCTTCAGCAAAAGCCCTCAGCAGCATGCATGGCAGAAAGTGTTCAACAT	2280
Qy	2411	GAGGCTCAAAATCTCGGCAGAAATCTACAAAATCCGACATCCAGCCGTGCCACCATCTCTGT	2470
Db	2281	GAGGGTCAAATCTCGGCAGAAATCTCAAAAGTCCGACATCCAGCCGTGCCACCATCTCTGT	2340
Qy	2471	GGACCTCTCTCTGTGAGAGATGGGCAGAGCCCTGAACATACCGCGCGGGGAGACACTTGGGGT	2530
Db	2341	GGAACTCTCTCTGTGAGAGATGGGCAGAGCCCTGAACATACCGCGCGGGGAGACACTTGGGGT	2400
Qy	2531	TTCGCCAGGCACACAGCCCGCCCTGTGTCCAAAGCATCTCGAAGCAGTGTGGATGGCCC	2590
Db	2401	TTCGCCAGGCACACAGCCCGCCCTGTGTCCAAAGCATCTCGAAGCAGTGTGGATGGCCC	2460
Qy	2591	CACACCCCAACAGACAGTCCGCTGGAGAGACCTGGATGTGAGTGGAGCTACTGGGTGAG	2650
Db	2461	CACACCCCAACAGACAGTCCGCTGGAGAGACCTGGATGTGAGTGGAGCTACTGGGTGAG	2520
Qy	2651	TGCAGAGAGCTGCCCCCTGTGCTCATCTCAGCAGAGGCCCTCACCTACTCCCGGACATCAC	2710
Db	2521	TGCAGAGAGCTGCCCCCTGTGCTCATCTCAGCAGAGGCCCTCACCTACTCTTGACATTCAC	2580
Qy	2711	CACACCCCAACCCAGCTGTGTCTCCAAAAGTGGCGCCAGTGGGCCACAGAAAGAGCTTA	2770
Db	2581	CACACCCCAACCCAGCTGTGTCTCCAAAAGTGGCGCCAGTGGGCCACAGAAAGAGCTTA	2640
Qy	2771	GAGACAGAGCTGTGAGAGCCCTGTGCAGAGCCCTCAGATCAGCAAGTGAAGTTACACAA	2830
Db	2641	GAGACAGAGCTGTGAGAGCCCTGTGCAGAGCCCTCAGATCAGCAAGTGAAGTTACACAA	2700
Qy	2831	CAGCCCCACATTCCTGGAGGTGCTAGAGAGTTCCTCCGTCCCTCGGGGTGTCTGCTGGCTT	2890
Db	2701	CAGCCCCACATTCCTGGAGGTGCTAGAGAGTTCCTCCGTCCCTCGGGGTGTCTGCTGGCTT	2760
Qy	2891	CCGCTCTTCCAGTCCCTCCATTCCTGAAAGCCCAAGTTCTACTTCATCAGTCCCTCCGGGA	2950
Db	2761	CCGCTCTTCCAGTCCCTCCATTCCTGAAAGCCCAAGTTCTACTTCATCAGTCCCTCCGGGA	2820
Qy	2951	TCACACGCCCAAGAGATTCACCTGACTGTGGCCGTGTGCTACCTACCAACCCGGAATAG	3010
Db	2821	TCACACGCCCAAGAGATTCACCTGACTGTGGCCGTGTGCTACCTACCAACCCGGAATAG	2880
Qy	3011	CCAGAGTCCCTCGACACCAGGTGCTCAGACATCTGCTCAACAGCCTGAAAGCCCAAGA	3070
Db	2881	CCAGAGTCCCTCGACACCAGGTGCTCAGACATCTGCTCAACAGCCTGAAAGCCCAAGA	2940
Qy	3071	CCGAGTCCCTGCTTTTGTGCGGAATGCGACGCTTCCACTCCCGAGAGATCCCTCCCA	3130
Db	2941	CCGAGTCCCTGCTTTTGTGCGGAATGCGACGCTTCCACTCCCGAGAGATCCCTCCCA	3000
Qy	3131	TCTCTTGACATCTCATTCGGGGCTGTGGCACAGGATGTGCCCCCTCCGAGTTTCTGGACGA	3190
Db	3001	TCTCTTGACATCTCATTCGGGGCTGTGGCACAGGATGTGCCCCCTCCGAGTTTCTGGACGA	3060
Qy	3191	ACGGCTCCATGATCCAGCACAAGGAGATGCGGGAGGCGCAGTACCTTGTGTGTGG	3250
Db	3061	ACGGCTCCATGATCCAGCACAAGGAGATGCGGGAGGCGCAGTACCTTGTGTGTGG	3120
Qy	3251	GTGCGCGCCCAAGATGAGACACATCTACCAAGAGAGATGTGGAGATGGCCCGAGAA	3310
Db	3121	GTGCGCGCCCAAGATGAGACACATCTACCAAGAGAGATGTGGAGATGGCCCGAGAA	3180
Qy	3311	GGGGGTGTGATGGGGGAGCACAAGCCTATTCCGCTCGCTGGCAGGACCCCAAGGTTCTA	3370
Db	3181	GGGGGTGTGATGGGGGAGCACAAGCCTATTCCGCTCGCTGGCAGGACCCCAAGGTTCTA	3240
Qy	3371	TGTTTCAGAGCATCTGTCGGCAGACAGCTGGCCACGAGAGTGTCCGTGTCTCCACAAGGA	3430
Db	3241	TGTTTCAGAGCATCTGTCGGCAGACAGCTGGCCACGAGAGTGTCCGTGTCTCCACAAGGA	3300
Qy	3431	GCGAGGCCACCTCTATTGTTTGGGGGAGTGTGGCATGTGCCCGGGAGCTGGGCCACACCT	3490
Db	3301	GCGAGGCCACCTCTATTGTTTGGGGGAGTGTGGCATGTGCCCGGGAGCTGGGCCACACCT	3360

QY 3491 GAAGACAGCTGGTGGCTGCCAAGCTGAATTAATGAGAGACAGTGGACATTTCTT 3550
 Db 3361 GAAGCAGCTGGTGGCTGCCAAGCTGAATTAATGAGAGACAGTGGACATTTCTT 3420
 QY 3551 TCAGCTCAAGAGCAGACAGCCTATCAGAGATATCTTGGTGTATTTCTTACGA 3610
 Db 3421 TCAGCTCAAGAGCAGACAGCCTATCAGAGATATCTTGGTGTATTTCTTACGA 3480
 QY 3611 GGGGAAGAGACAGAGGCTGGGTGAGCCGACAGCCTGAGATGTACAGCCTTGAGG 3670
 Db 3481 GGGGAAGAGACAGAGGCTGGGTGAGCCGACAGCCTGAGATGTACAGCCTTGAGG 3540
 QY 3671 GCCTACAGAGAGGCTTAAAGCTCCGGGACAGACTTAAGATGAGGACAGCTCT 3725
 Db 3541 GCCTACAGAGAGGCTTAAAGCTCCGGGACAGACTTAAGATGAGGACAGCTCT 3595

RESULT 15
 HSU05810 3855 bp mRNA linear PRI 07-DEC-1994
 LOCUS Human inducible nitric oxide synthase mRNA, complete cds.
 DEFINITION
 ACCESSION U05810
 VERSION U05810.1 GI:452487
 KEYWORDS
 SOURCE Homo sapiens.
 ORGANISM Homo sapiens.
 Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE
 AUTHORS Maier R., Bilbe G., Rediske J. and Lotz M.
 TITLE Inducible nitric oxide synthase from human articular chondrocytes:
 cDNA cloning and analysis of mRNA expression
 JOURNAL Biochim. Biophys. Acta 1208 (1), 145-150 (1994)
 MEDLINE 94368816
 PUBMED 7522054
 REFERENCE
 AUTHORS Maier R.
 TITLE Direct Submission
 JOURNAL Submitted (28-JAN-1994) Rainer Maier, Medicine, University of
 California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0663,
 USA

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